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BORLAND REJECTS $150M BID FOR DELPHI, DEPLOY

BY JENNIFER DEJONG

Former Borland board member Robert Coates announced last month that his bid to buy the company's Delphi and Deploy assets for US$150 million in cash has been rejected.

Borland's board of directors turned down the offer "without any discussion…without requesting any details of the proposed transaction, and without any counteroffer or effort to negotiate a more favorable transaction," Coates said in a news release.

Borland declined to comment but released an excerpt of a letter its counsel sent to Coates' counsel. "I have been asked…to advise Mr. Coates that Delphi and Deploy are integral to Borland's business and growth strategy, and are not for sale."

A self-described "major shareholder" in Borland, Coates has been vocal in his view that the company should spin off legacy tools, including its Delphi IDE for Windows developers, and its Deploy middleware products, such as VisiBroker, and focus solely on Core SDP, its life-cycle offering.

Coates said in the news release that he plans to submit a new offer to Borland's board. ■

BEA Ignites Tool Suite With NitroX

BY ALEX HANDY

BEA Systems is moving forward on the expansion of its developer tools with the announcement last month that the company had acquired IDE maker M7, and with it, the rights to NitroX, its Eclipse-based development environment. Terms of the purchase were not disclosed.

The announcement came at BEA World, its annual user conference that took place the last week in September.

The purchase brings with it added frameworks for Struts, Hibernate, JSF and JSP, said BEA vice president of product marketing Bill Roth. This functionality will be integrated with the company's WebLogic Workshop development suite, though no time frame has yet been laid out for the completion of this merger.

Laura Didio, research fellow at Yankee Group, said that the move is indicative of BEA's strategy to take on the big players in its market space.

"It certainly fills in a gap for BEA. They've been in a very strong position. BEA reminds me in a lot of ways of the little engine that could. The markets that they play in are populated by some of the biggest industry giants."

Didio said that the decision to purchase M7 was also a direct swipe at IBM. She said that in

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Microsoft Lays Foundation For Workflow

BY ANDY PATRIZIO

Remember back in 1993, when people were discovering this "Internet" thing? To use it, you needed an add-on protocol called TCP/IP, which didn't come natively in Windows 3.1.

Today, IP access is native to cell phones. It's just a part of our daily lives. Microsoft aims to do the same with workflow support planned for Windows Vista. The new Windows Workflow Foundation programming model, introduced at the Pro-

MICROSOFT <3 RSS
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Salesforce.com Opens Apps to All

BY ANDY PATRIZIO

With the 6.0 release of Sforce later this year, Salesforce.com will allow developers to make their custom applications available to any and all subscribers of the on-demand CRM service.

This will be the first time that Sforce customers can access applications written by a third party. Until now, the Sforce service had been an on-demand platform for applications that customers and subscribers had written for their own use along with the CRM apps that Salesforce.com provided.

The program, called AppExchange, will allow customers to add new applications to their existing Salesforce deployments with just a click. AppExchange was introduced in mid-September during the company's Dreamforce user conference in San Francisco. CEO Marc Benioff compared the service to eBay and iTunes in terms of the simplicity of purchasing the applications.

Applications are sorted by topic on Salesforce.com's AppExchange.

As part of the program, Salesforce.com is streamlining its projects—it had so many "-force" projects, it was becoming confusing. The Customforce development tool and Multiforce deployment platform will be combined into Appforce. The Appforce brand contains the entire on-demand platform for development and deployment of applications. It includes Appforce Builder, Appforce

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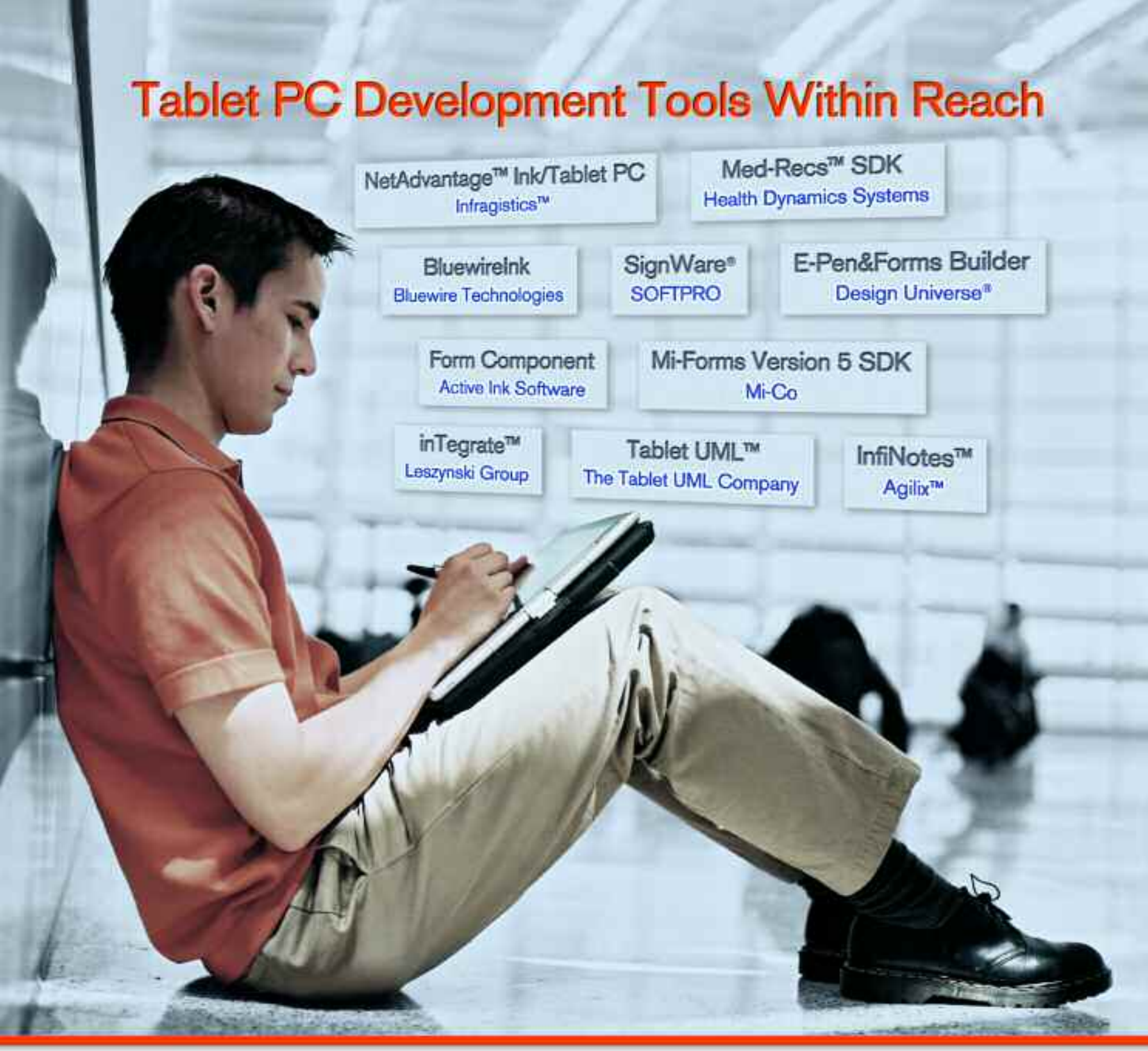
Tablet PC Development Tools Within Reach



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App Security Message Still Not Mainstream

IBM, Microsoft keep silent as small players spread word on writing secure code

BY JENNIFER DEJONG

When it comes to spreading the word on writing secure code, IBM and Microsoft aren't talking.

The application security message has yet to make its way into the marketing efforts around IBM's and Microsoft's development platforms, said Forrester analyst Randy Heffner in an e-mail interview. "So far, secure coding is still in the space of specialist vendors."

Asked why that is so, analysts noted that the application security story doesn't necessarily make for the most effective marketing campaign. Software companies that sell tools for writing bullet-proof code said that IBM and Microsoft aren't competing on the application security front, and neither is likely to join the cause until the market for such tools is more clearly defined.

SOA TELLS A BETTER STORY

"If a vendor doesn't have to use security as a calling card, that's better for the vendor," Forrester analyst Mike Gilpin said, responding to interview questions by e-mail. Other issues, such as the benefits of building a service-oriented architecture, make for a more compelling story, enabling the message-bearer to increase business value, instead of "just putting up castle walls," he said.

Both IBM and Microsoft have emphasized security issues around Web services transactions, supporting industry standards such as WS-Security, said Forrester's Heffner. IBM's main security focus has come from the Tivoli stable, where tools such as Access Manager provide secure, single sign-on capabilities, noted Graham Titterington, an analyst at U.K.-based Ovum, in an e-mail message. And, of course, Microsoft has been forced to address concerns around security vulnerabilities in its Windows operating system. But beyond that, security hasn't been central to either company's marketing messages.

That's because the real fight isn't about security at all, said Roger Thornton, founder and chief technology officer of Palo Alto, Calif.-based Fortify Software, which sells a source code scanner and a testing tool for simulating attacks. IBM and Microsoft are competing to take the bigger share of the life-cycle development platform market, he said, referring to the IBM Rational Software Development Platform (RSDP), delivered last year, and Microsoft Visual Studio Team System, expected in November. IBM has offered modeling and testing tools for some time, but the industry is watching closely as Microsoft makes its foray into those markets, Thornton noted.

Microsoft has said earlier that Team System is expected to include Static Code Analyzer, based on its earlier FXCop, which looks at source code vulnerabilities such as SQL injections, an attack that hackers employ to extract information meant to be off-limits. Like earlier Visual Studio editions, Team System is expected to enable application security partners—including Fortify, among others—to plug in application security tools that are more extensive than Microsoft's own offering. RSDP doesn't include its own application security tools, but relies on those of partners Fortify and Secure Software, said IBM Rational's Eric Naiburg, market manager for desktop products. The company is pursuing additional application security partners, he said.

But beyond that, application security doesn't get much play in the IBM or the Microsoft life-cycle development story.

That's not because they aren't thinking about it, said CEO Kevin Kernan, CEO of McLean, Va.-based Secure Software, which sells a source code scanner as well as professional services based on CLASP, its secure coding methodology. They are, but they won't embrace the message until the need for automated application security is seen as an integral part of the development process, he said. When that will be is hard to tell, as the market for such tools is still emerging.

'DEFENDING OUR POSITION'

Another reason why IBM and Microsoft have left the secure coding market to partners is that the expertise required to play in that arena is significant, said Fortify's Thornton. "You have to have deep knowledge about security attacks." And while IBM and Microsoft could certainly acquire that skill set if they chose to do so, neither has that deep application security expertise in-house, Thornton said. "We considered that question when we founded Fortify [in 2003.] We asked: 'Can we defend our position from the big guys?' "

What's more, said Thornton, the issue of application security caught the entire development community off-guard. "The notion that code could be a point of attack snuck up on us because of the Web. The platform vendors, like everyone else, were blindsided." It's taken so much effort to get the message out there, added Thornton. "But [application security tool makers] are making a big dent." ■

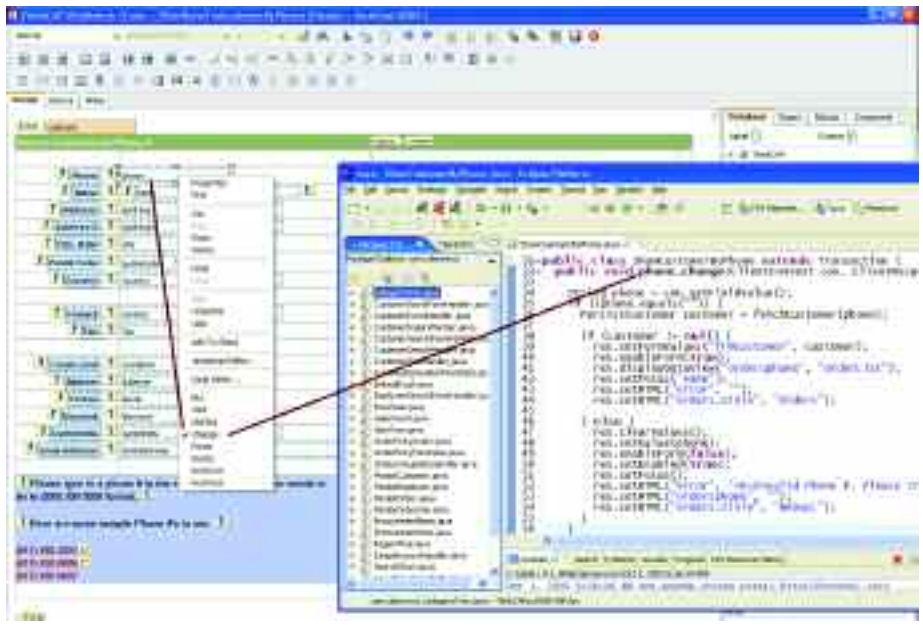
Scrubbing It All for AJAX

ClearNova revamps ThinkCap RAD tool for RIA creation

BY DAVID RUBINSTEIN

With all the buzz in the industry surrounding AJAX right now, RAD tool vendor ClearNova late this month expects to release the next version of its product, switching the focus from J2EE development to rich-client Internet applications.

"We see AJAX as a way to build three-tier client/server applications," said Steve Benfield, CTO at ClearNova. He said that traditional Web developers need to change their thinking from pages and actions to components and events, as interactive Web applications are event-driven by nature—code must execute whenever a user clicks on a button or inputs data into a field.



ThinkCAP JX's Visual Workbench allows developers to build AJAX-based applications using either client-side JavaScript or server-side Java.

The forthcoming ThinkCap JX introduces a J2EE server piece that many rich-client application platforms eschew; Benfield explained that ClearNova believes some presentation should be handled on the server, allowing programmers to change images or perform other screen manipulations. Other AJAX (Asynchronous JavaScript and XML) approaches use the application server as a means to deliver data only, while the client handles all the presentation. "To say the server will only send down straight XML is ludicrous," he said. The server, he noted, can respond to user input by returning a single field, XML and HTML, or JavaScript for the client to execute.

Benfield said ThinkCap offers the first complete solution built expressly for the creation of what the company calls rich Internet business applications, including a visual design environment with data-aware controls and a layout manager that decides where a component goes on the user's screen when it is called.

"You don't have to hard-code into the application where the output of a component goes on screen," he said. "It's a more flexible way of building applications." Other features include an events-based page flow designer, smart data binding and integrated data persistence.

ThinkCap offers developers choices between Java and JavaScript when it comes to creating Web applications, Benfield said. "We have an extensive AJAX API, but we also have a matching Java API," he said. "Six or seven lines of Java [on the server] affect a lot of things on the client." When a user clicks a "send" button, for example, the application can execute JavaScript on the client as well as a Java method on the server, he explained.

The problem with JavaScript, he noted, is that it's client-only; to do anything on the server requires programming in a different language.

"I don't believe JavaScript is evil or horrible," Benfield said. "There are some things I really like. We just want to give the best of both worlds." ■

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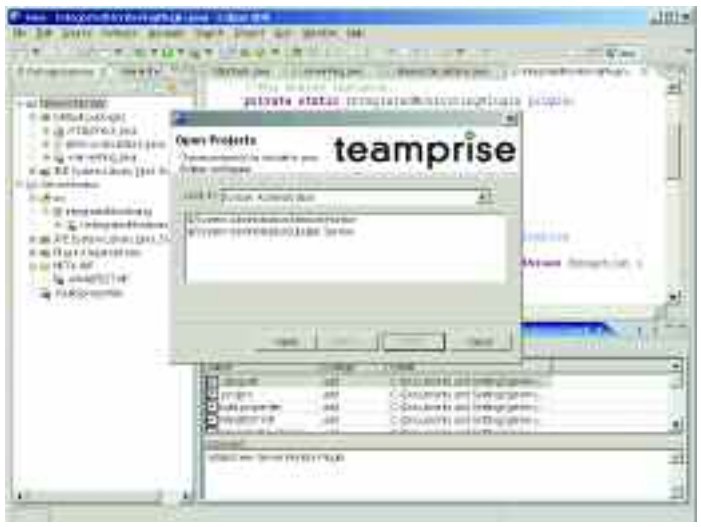
Team Foundation Server: Not Just for Microsoft Developers

BY JENNIFER DEJONG

A third-party Visual Studio developer may help Microsoft spread its favorite watchword: interoperability.

SourceGear's Teamprise Client Suite is a set of three plug-ins that let Java, Mac and Unix developers use the source-control and work-item tracking features of the Microsoft Team Foundation Server. "A lot of companies have .NET developers, as well as those writing in Java," said Corey Steffen, general manager of Teamprise, a newly formed division of SourceGear. By plugging a Teamprise client into Eclipse, for example, development teams can do source control for Java and .NET projects with the same tool, he said.

In addition to the Eclipse plug-in, Teamprise includes an "Explorer-style" graphical user interface application for developers working outside of an IDE, and a command-line client for those who prefer to write their own build scripts, Steffen said. All three clients will run on Linux, Mac OS X, Solaris, Windows and other Unix variants. The Eclipse plug-in supports versions 3.0 and 3.1 of the open-source framework, as well as IBM Rational Application Developer.



SourceGear's Teamprise plug-in lets Eclipse and other non-Microsoft developers use Visual Studio Team Foundation Server for source control.

Team Foundation Server is the collaboration server underlying the forthcoming Visual Studio Team System. Microsoft's role-based, life-cycle offering will include Team Architect, Team Developer and Team Tester when it is delivered Nov. 7. But the company said in late August that Team Foundation Server has been delayed until the first quarter of 2006.

Developers can preview Teamprise Client Suite at www.teamprise.com/preview-register.py. Release of the final product, which starts at US$799 per developer, will coincide with that of Microsoft's Team Foundation Server, Steffen said.

The initial Teamprise release will support core source-control features, including code check-in and check-out, undo and "get latest version." Subsequent releases also will offer branching and merging (allowing teams to manage multiple versions of the same code) and shelving, essentially a preliminary check-in for changes that have not been completed. ▮

Business Objects Has an Intelligent Question

BY EDWARD J. CORREIA

How valuable is a tool that would prevent anyone from asking a stupid question? When it comes to database queries, such a tool could put error-free searches in the hands of anyone.

That goal led integration tools developer Business Objects to build a version of its namesake business integration platform that it claims permits developers to build simple interfaces for creating foolproof queries into enterprise data.

"People don't want a blank field [into which] they start typing natural language," said James Thomas, director of product marketing, of the impetus behind the new querying capabilities in Business Objects XI release 2, released late last month. "iPod and Google are successful because they [present] very simple interfaces that do pretty complicated and sophisticated things."

Thomas said the software, which costs on average about US$40,000, now permits developers to create query interfaces that use drop-down lists of search terms and data categories. "An IT person would set up a domain around a topic area like product, customer or inventory, and gather all the information in the semantic layer," he said, referring to Business Objects' data-abstraction layer. "Instead of providing a query tool for sophisticated analysis, a user simply picks which domain they are looking for with simple pick lists, something they are comfortable with."

A metadata layer is added atop the semantic layer, he explained, and connects with the platform interface. New to the suite is a MetaData Manager, which Thomas said presents a single view into all metadata in the BI environment.

Also new is the ability to automate the distribution and deployment of BI systems and objects across the environment. "Essentially, this provides an XML-based view of the platform so that you can distribute reporting [for example] to a specific region's servers or move [objects] from development to test to production."

Release 2 also now includes a wizard-driven tool that simplifies the creation of data warehousing extract-transform-load (ETL) applications. "Usually when people build an ETL job, they go into a blank screen and start to build their data sources in an ad hoc fashion. This lets people visualize data sources and transformations for building an ETL job." ▮

News Briefs

NEW PRODUCTS

Quest Software has released a beta version of **Toad for DB2**, which improves the productivity of database developers and administrators. The software includes a connection manager, a SQL editor, database object browser, project manager and DB2 knowledgebase. Toad for DB2, due to ship by the end of this month, will cost US$870 per developer . . . Integrated Software Metrics is shipping **Predictive Server**, a risk management tool for software projects. The software gathers metrics and error reports about a project, and can use these not only to analyze problems and anticipate delays, but also to evaluate future software projects. Predictive Server includes a project scheduler, a code analyzer for C/C++ applications and a defect tracker . . . DataDirect Technologies has released **XQuery**, a Java software component that performs XML database queries based on the XQuery API for Java. The component lets developers write queries against relational databases using the XML-based XQuery syntax; the results are also returned in XML . . . db4objects, which sells object database software for Java and .NET, has launched **odbms.org**, an information portal for object database technology. The portal will contain open-source software, lecture notes, tutorials and other documents, as well as vendor listings . . . SpreadsheetGear has released **SpreadsheetGear for .NET**, a component that lets applications create and read Excel files and workbooks. The US$499 component contains 235 functions, all Excel operators, defined names, data tables, arrays and custom functions, and works with Visual Studio 2003 and 2005 . . . Triplehash is offering **XtraPHP**, an application framework for PHP developers designed to separate HTML presentation code into different files from PHP logic code. The US$39.95 software includes classes to represent Web controls, as well as input validation controls . . . M7 is shipping **NitroX Studio**, an Eclipse-based Web development suite that supports Hibernate, JavaServer Faces, Struts and JavaServer Pages. The US$899 suite includes database and object-relational mapping tools, as well as the company's JSP, Struts and JSF integrated development environments . . . ILOG has released **JViews Maps for Defense**, a graphics toolkit for creating interactive maps for the defense industry. Designed for military command and control applications, the Java toolkit can display real-time field data and detailed and realistic terrain information, and supports videolike zooming and object animation . . . Database developer 4D has announced **4D RAD for Oracle**, a rapid application development kit for building Mac OS X and Windows database apps that will use Oracle Database 10g. The software uses a graphical interface to create Scalable Query Objects that communicate with the Oracle database.

UPGRADES

Zend Technologies has updated its **Zend Platform** PHP server. Version 2 supports session clustering and improves its multiuser support for configuration across nodes. It also adds an embedded MySQL database engine and a GUI for Zend's support tools. Zend Platform costs US$995 for a single-processor server, and $1,495 for multiprocessor systems. The initial release runs on Linux, but versions for FreeBSD, Mac OS X and Solaris will ship this year . . . Service-oriented architecture company Infravio has upgraded **X-Registry**, its IT asset management and governance platform. X-Registry 5 supports the UDDI 3 spec, and adds a role-based access control system and support for JSR 94, the Java Rule Engine API . . . Versant is offering version 7.0 of its **Versant Object Database**, with ANSI C++ support, preview support for EJB 3.0 persistence, improved server-side ad hoc queries, and better performance, scalability and reliability. It also implements the new Java Data Objects Query Language, or JDOQL . . . AppWorx has shipped a new version of its Java-based business process management software. **AppWorx 7** adds a new mainframe process agent; the software already works with Linux, OS/400, OpenVMS, Unix and Windows. The update also adds a SOAP API and enhanced Web services support,

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Oracle Fusion: The 'Frankenstein' of SOA?

BY ALEX HANDY

SAN FRANCISCO — Continuing one of the hottest rivalries in the software industry, IBM and Oracle in September both announced expanded SOA offerings. But while IBM announced a home-grown enterprise service bus-centered SOA solution, Oracle showed off a series of modules that one analyst likened to the stitched-together monster of Mary Shelley's "Frankenstein."

Oracle unveiled its creation at the company's massive Oracle OpenWorld conference held here last month.

Dubbed Fusion Architecture, the company's new SOA offerings are divided into six pieces. The first is Grid Infrastructure, an implementation of Oracle's Database 10g spread across a grid and managed by Fusion Middleware and Enterprise Manager 10g Grid Control. The second element is the Fusion Service Registry, a program that tracks all services and interfaces offered in any given network. Other pieces include Fusion Service Bus, the company's new enterprise service bus; and Business Process Orchestration, a set of tools designed to monitor and track compliance with enterprise business policies. Fifth is Business Intelligence and Activity Monitoring, a compilation of tools based on Discoverer and other business integration tools.

PREDICTING ORACLE'S NEXT MOVE PAGE 32

And finally, Oracle brings all of these disparate pieces together in the Unified Portal. This last piece of the puzzle is designed to put Oracle's SOA environment into the hands of users.

Jason Bloomberg, senior analyst for IT analysis firm ZapThink, said that Oracle is taking the Frankenstein approach to SOA. "They've been working on building out their SOA offering for a while by assembling various parts from various different companies. We liken them to the Frankenstein of the SOA world. The question is will it all work when they're done?"

Rick Schultz, vice president of product marketing at Oracle, said Fusion is based on open standards. This, said Schultz, means that Fusion elements will function with products released by outside vendors as well, making it a versatile solution.

Fusion isn't an entirely new product, according to Schultz, who said it has been maturing under other names within Oracle's product spectrum.

He went on to say that his company quickly integrated the single sign-on capabilities of Oblix, a company it acquired earlier this year. Oracle, said Schultz, needed only two months to bring the Oblix functionality into its SOA framework.

ZapThink's Bloomberg said he doubted that Oracle's new offerings would topple IBM from the SOA throne. "I would say that IBM is always the company to beat," said Bloomberg. "They have been a thought leader in the SOA space for quite a while now. Oracle is really trying to catch up. Oracle really has its sights set more on the business applications space than the integration space." ▮

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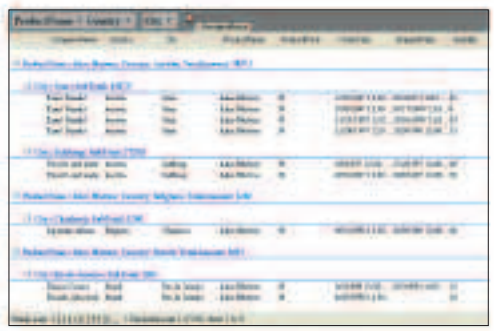
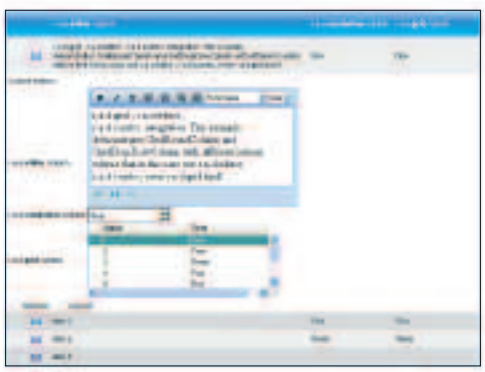


Multi-column grouping: Outlook®-style or with custom expressions and aggregate functions.



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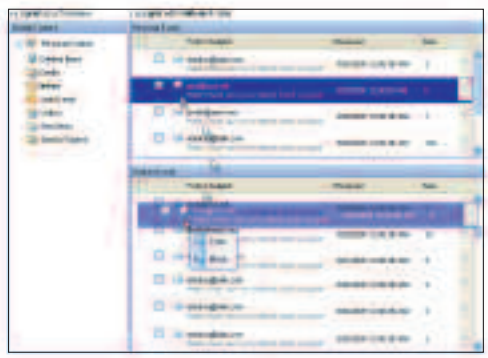

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Microsoft <3 RSS, But Wants It to Change

BY ANDY PATRIZIO

Microsoft isn't known for embracing ideas it didn't invent, but it's gotten the RSS religion in a big way. This became readily apparent at the Professional Developers Conference last month, when RSS (Really Simple Syndication) was present in practically every client technology on display.

That's not to say Microsoft hasn't tried this technology before. In 1997, the company came up with the Channel Definition Format for the Active Channel feature in Internet Explorer 4.0. Microsoft may have been first with the idea, since RSS first appeared two years later in 1999, but CDF never caught on.

RSS has caught on, and Microsoft has embraced it as a delivery mechanism in a big way, so much so that company engineers have been seen wearing "Longhorn ♥ RSS" t-shirts. There's even a Web page on MSDN dedicated to it at channel9.msdn.com/ShowPost.aspx?PostID=80533. So the question is, what does Microsoft like so much about RSS?

"Microsoft believes that RSS changes the dynamic of the Internet from simply browsing and searching to subscribing, the new way of consuming information on the Web," said Gary Schare, director of Internet platforms and security product management at Microsoft. "We believe that subscribing [via RSS] is the next stage of the evolution, allowing you to find the source of information you like once, and then have smart software deliver it to you automatically on a regular basis."

Microsoft is integrating RSS into Windows Vista at the platform level and exposing the APIs, so developers can use the native RSS capabilities within their applications. With native RSS support, Microsoft removes the need for each application to understand how to subscribe, download and read different user feeds. In a way, it's very similar to how Workflow Foundation will eliminate the need to worry about workflow plumbing in an application.

RSS, however, is in a serious state of flux, with a number of initiatives and groups fighting over ownership. True to past behavior, Microsoft is making a few additions of its own to RSS. One of them is Simple List Extensions, which can be used to enable RSS feeds to include photo albums, music playlists and top-10 lists as RSS feeds.

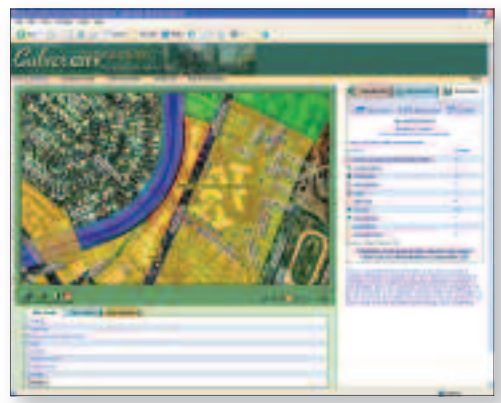
However, Microsoft is hardly playing a vendor lock game. It's making the SLE extensions available under the Creative Commons license, the same license under which the RSS 2.0 specification was released.

In the first public demo of IE7, due with Vista next year, Microsoft showed how to subscribe to an RSS feed from within the browser, how Outlook could use calendar files that were embedded as RSS feeds, and a souped-up version of Netflix that was much more animated and graphic-heavy than the site is now.

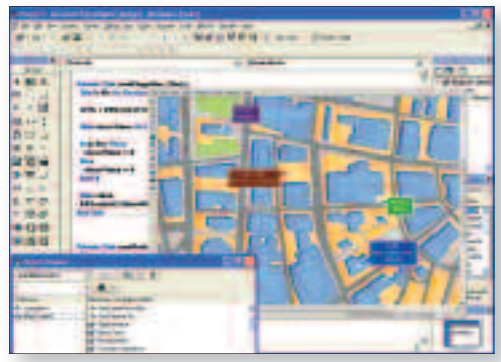
Microsoft would not say if support for RSS would be built into future versions of Visual Studio, but it does offer a starter kit for Visual Studio 2005. ▮

Build Geography Into Your Applications

Population demographics analysis application



Web-based property management system



Using GIS components within a commercial IDE

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Apple Web Site Aids Intel Transition

BY EDWARD J. CORREIA

Following an update to its OS X for Intel processors released last month, Apple Computer has put up the Developer Transition Resource Center, a free area of its developer.apple.com Web site devoted to aiding application migration to the Intel processor platform. Intel-based Macs are scheduled for release in June 2006.

On the site, Apple says that most developers will want to modify their applications to run not only on the new Intel-based Macs, but also on current PowerPC-based units. With the exception of apps built entirely in Java or AppleScript, which Apple says require no work, developers will need to create what's called a universal binary. This contains libraries and frameworks that run natively on both platforms. The amount of work involved depends on the type of code in the application and the compiler that was used. Apple did not respond to calls for comment about the site; for details on which migration path applies, see developer.apple.com /transition/projectscope.html.

Apple also has released OS X 10.4.2 for Intel, which it says has feature parity with the current operating system for PowerPC-based Macs. Though the release fixed about 500 bugs, many reportedly remain—some involving printing. Also, apps built for previous versions reportedly will not run, an apparent attempt to thwart pirates that have cracked the installer's security to allow it to run on non-Apple hardware. ∎

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Rally Takes On Project, Defect Management

BY DAVID RUBINSTEIN

Rally Software Development next month will deliver a revamped project management environment as part of release 5.5 of its software for agile development. Another module, for managing defects, was released on Oct. 1.

Despite the fact that agile processes encourage development managers not to deploy people onto multiple projects, the reality is that people are shared across projects, according to Rally CEO Richard Leavitt. "That makes it hard to roll up team management and resource planning." The new environment in Rally 5.5 provides resource reporting views that are designed to make it easier to track who is working on which projects, and where human resources are allocated.

As for the defect management piece, Leavitt said Rally customers wanted customizable fields and views and advanced filters. "Such things as date fields can now be set up, and users can manipulate how they appear in summary views," Leavitt said. "Then, using the filters, they can extract what they want. We've tailored all this to helping customers solve problems, and to make the transition [to agile development] easier and less shocking."

Leavitt indicated that release 6 will be launched by the first of the year, and will include such things as an Eclipse plug-in and support for the open-source Fitness testing framework, which deals with acceptance testing, he said. ∎

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Above All, Composite Apps Need to Be Easy

BY DAVID RUBINSTEIN

Once you mine, you must refine.

Those are not the words of the late trial lawyer Johnnie Cochran. They're the first two steps to what Above All Software believes is the path to creating composite applications, which the company claims can help businesses solve the problems of a mismatch between requirements and IT functionality and of using processes across different business areas.

"Composite applications have one user interface, they're transactional, and they combine data and functionality from multiple systems into a single interface," said Sanjay Sarathy, vice president of marketing, in announcing Composite Application Platform 4.0, released last month.

According to Sarathy, there are four requirements to creating composite applications: mining the organization's data, refining that data into more business-ready constructs—"Customer order instead of SAP BAPI," he explained—making the assembly of the components simple, and providing the flexibility to deploy the finished application to a target of choice.

The platform consists of Above All Studio for creating and assembling the components and apps; a Repository that holds the components and metadata; Composite Server for deployment to browsers, rich clients and mobile devices; and Knowledge Packs, which help in the transformation of system-specific interfaces into more understandable representations.

"There is no notion of semantic interoperability across systems," Sarathy said, noting that each system, such as ERP or relational database management, uses a different interface and nomenclature. Using components with business-ready constructs makes creating composite applications much easier, he claimed. Version 4.0 of the platform has new Knowledge Packs for Siebel and SAP systems, he said.

The new release introduces a Composite Application Modeler into Studio, in which developers can visually refine data elements into business services using drag-and-drop techniques.

AUTOMATIC CONVERSION

Also new to this release is a Composite Server, which includes an engine that has a WSDL interface and communicates via SOAP, so the business services can automatically be transformed into Web services by the engine, Sarathy said. Developers can invoke the business service underneath the Web services wrapper in whatever development tool they prefer to work in, he added. By converting the business service to a Web service, the functionality can be deployed to any target platform that complies with Web services standards.

Composite Application Platform 4.0, which starts at US$7,500 for a developer license, also now has J2EE platform support. "The servers had been .NET-based, but we're extending support to IBM's WebSphere Application Server," Sarathy said, adding that Above All is looking to support BEA, JBoss and Oracle app servers in the future. ▮

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JBoss Seam Showing in Initial Release

Unified JSF, EJB 3.0 framework designed to make Java more like Ruby on Rails

BY ALEX HANDY

Hibernate founder and JBoss core developer Gavin King has been hard at work on simplifying the J2EE framework. The JBoss developer is taking on the disparate parts of JavaServer Faces and EJB 3.0 and working to build them into one simple-to-use framework. The project is called JBoss Seam, and while it's not yet finished, the company has created its initial release of the software. In conjunction with this, the team also has released JBoss Microcontainer 1.0 in mid-September.

JBoss decided to unify JSF and EJB 3.0 to increase productivity for Java developers, King said. "People spend a lot of time writing useful code to glue these stovepipe systems together," he said. "One of the things Ruby on Rails has taught us is if you have a unified process, you can have massive productivity gains."

Ruby on Rails is an open-source Web application framework that typically requires very little code to be written, as compared with other frameworks. The stack is based on the Ruby programming language, which was created by Yukihiro "Matz" Matsumoto in 1995. It draws its origins from other scripting languages, such as Ada, LISP and Perl.

'ENDLESS COMPLAINTS'

"Seam is very much an effort to bring Ruby on Rails-style productivity to the Java platform," he acknowledged. "We've heard endless complaints regarding the productivity in Java, and we think it's not the language—it's bad frameworks."

The JBoss Microcontainer is also a piece of this unification puzzle, said King. "This is kind of an enabling technology behind what we're doing with things like Seam," said King. "People are frustrated with these monolithic Java application servers. It's very difficult to test code that's written inside the application server. We've seen a lot of success from so-called lightweight containers that seek to do some of what an application server does in a way that can be run inside a test suite, inside Eclipse for example. So all those previous approaches have been based on the idea of throwing out the baby with the bath water, leaving J2EE and leaving the platform. And there's no reason to do that."

King added that "the Microcontainer is a platform in which you can run services including the standard J2EE services, but it's quick to bootstrap and can be embedded inside a test case. This is one of the enabling technologies for something like Seam. A critical piece of Seam is to have easy unit testing. We have to make it easy to test and debug code. The whole stack has to be able to run in a way that's faster to bootstrap." ▮

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Recursion Makes Cinergi Go Both Ways

BY EDWARD J. CORREIA

Integration tools developer Recursion Software late last month released Cinergi 2.0, the most recent version of its integration platform for C/C++, Java and .NET. The company claims the platform simplifies the creation of bidirectional communications between integrated applications on opposite sides of a firewall, unusual among ESB-based products.

John Patoskie, vice president of engineering and operations at Recursion, said version 2 reduces the time and effort required to integrate applications across wide areas or with the systems of newly acquired companies and business partners. "If you're a financial company [for example], and you would like to expose functionality to someone outside the firewall, you can open one socket connection and do all necessary communication [between] your applications." In prior versions of the software, he said, such communication was impractical. "Two-way communication required significantly more setup."

Earlier in September, Recursion introduced the Adaptive Technology Suite, a three-piece bundle that groups its US$25,000 Cinergi with Voyager, a $1,000-per-developer framework for building distributed Java applications; and Toolkits, which are packages of predeveloped C/C++, Java and .NET code and libraries aimed at saving time during program development. Toolkits cost $450 per developer per language.

At that time, Cinergi received an upgrade that the company claims significantly advanced the tool's performance. "When thinking integration, most people think Web services," said Patoskie. "But SOAP and XML may not always be there in the way you need," he said, referring to the speed of the pervasive protocols, claiming they top out at only about 1,000 messages per second. "We've clocked Cinergi at about 4,000 invocations per second," said Thomas Wheeler, Recursion's senior architect, referring to the company's own internal testing.

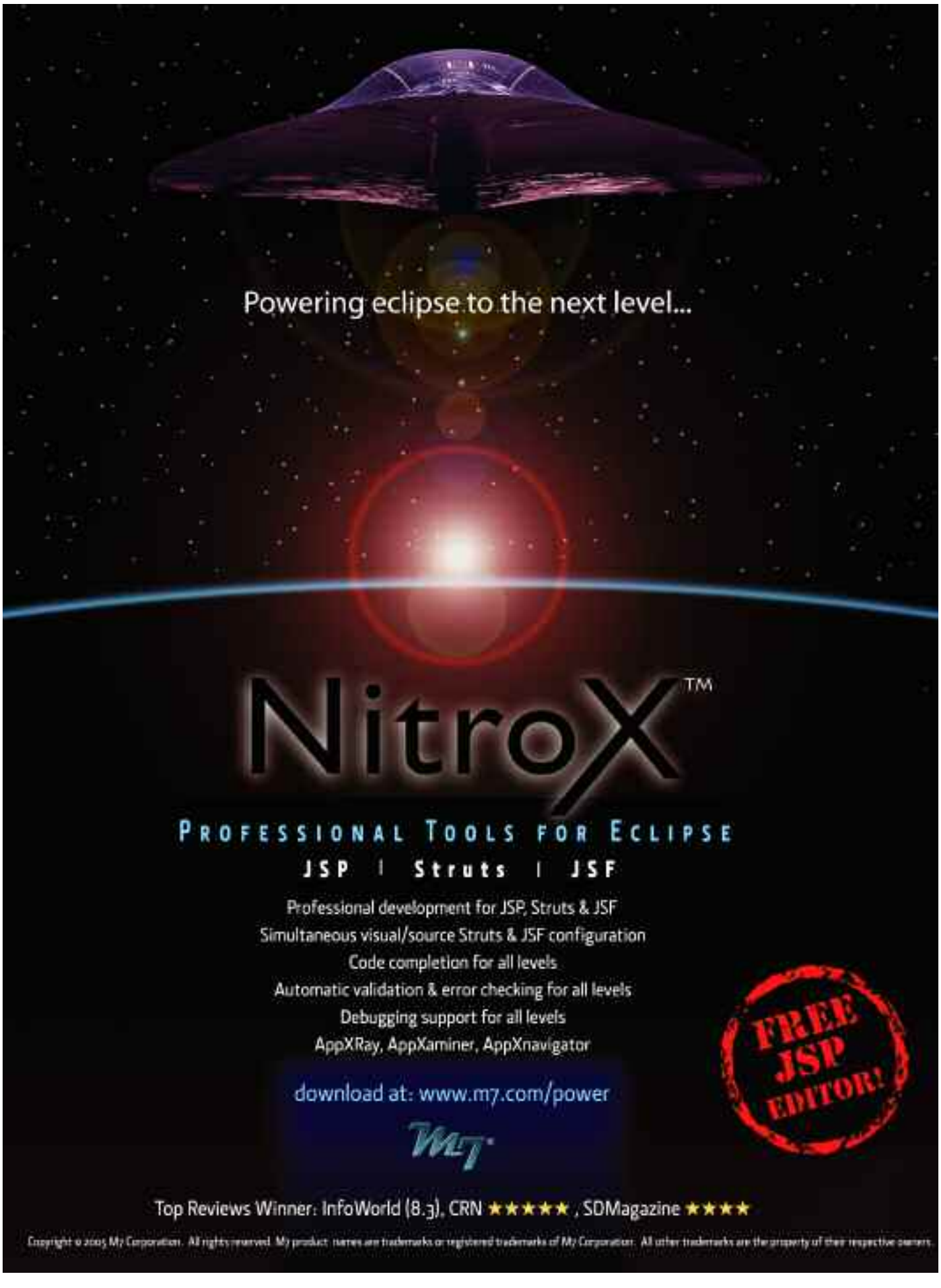
BINARY BOOST

Behind the performance increase, Wheeler said, is binary messaging, a proprietary protocol that he said also can be used along with standard protocols. "We support SOAP and XML for people who want to communicate with partners over the Internet. But for back-end performance, we allow them to use our binary protocol, which is significantly faster than anything they can find using SOAP and XML."

In addition to its faster-than-SOAP performance, Recursion differentiates Cinergi in terms of its ability to freely mix and match languages.

Included with Cinergi is Architect Console, a GUI environment for creating integrations manipulating code. "You look at your C++ code [for example] and decide what you want to expose to other languages," Patoskie said. "It then generates code to communicate with other applications. It can also do the same for your Java or C# code."

Available now, Cinergi 2.0 is a free update to maintenance customers. ▮



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Iona: Eclipse Move Means No More Tool Sales

BY EDWARD J. CORREIA

Iona Technologies is throwing in the towel on selling tools. When the integration tools developer last month announced a plan to open and migrate all of its development tools to Eclipse, it said it will focus instead on its more profitable runtime business.

"We're making all our money from runtimes, not from the tooling," said Carl Trieloff, director of product management and head of Iona's open-source initiatives. Iona's flagship is Artix, an ESB-based integration runtime. "What you need in order to deploy SOA technologies or get them adopted is have really good tooling," which in turn drives demand for the runtime, he said.

To that end, the company in September joined the Eclipse Foundation as a strategic developer, and proposed the SOA Tooling Platform (STP) project, a top-level project that will oversee the creation of a WSDL Editor, SOA Network and other tools for building service-oriented architectures from within the Eclipse framework.

Mike Milinkovich, executive director of the Eclipse Foundation, said the project has the potential to take Eclipse beyond Java. "SOA is one of the architectures where you can certainly implement in Java. But it's a much broader conversation around interoperability and application construction through integration. I'm really happy that we have this project," he said.

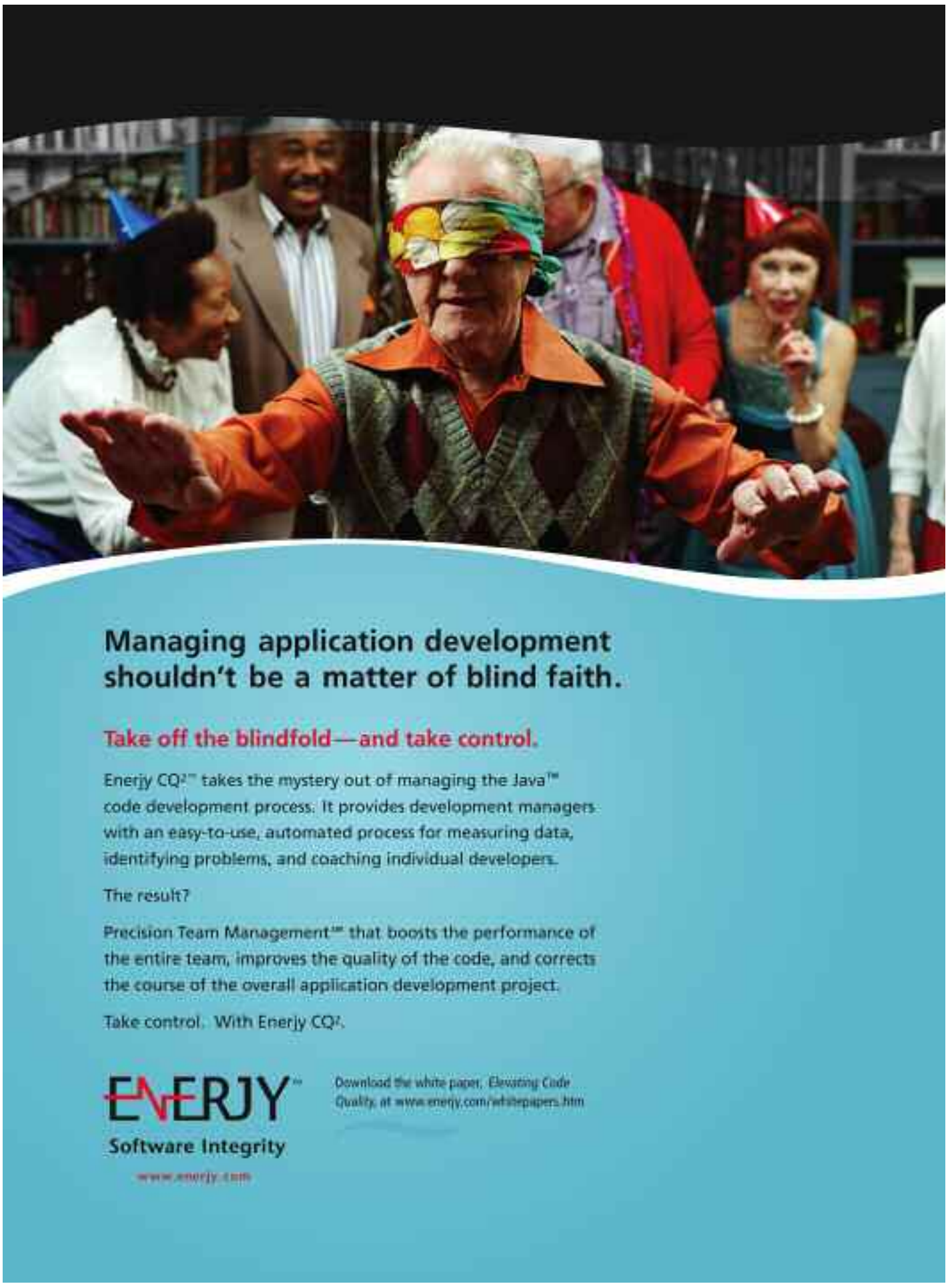
Source code from the Artix tools, which already were Eclipse-based, will form the basis for the SOA project, which also is being led by Sybase and ObjectWeb, whose Data Tools and Web Tools projects, Trieloff said, are complementary to the proposed SOA tools.

WSDL INSIDE

Trieloff described the WSDL Editor as a tool for creating service consumers and providers and for visualizing the SOA Network, which is the infrastructure for SOA deployment. "The SOA Network is the modeling above all the components. It contains the service bus, registries, repository, management system and data-access brokers," he said, and will become the layer upon which to impose policies across the underlying components. "You can [use] an editor to say, 'I can connect this to that because it's exposing the following policies,' or 'I can't, and it requires the following policies.' It's a visualization of more than one service consumer, provider and participant in a SOA application," he said.

While there is some overlap with Web Tools, Milinkovich said STP differs from that project in important ways. "Web Tools focuses on things with defined standards, such as those from J2EE or W3C, WS-I. In the SOA world, those standards are still emerging," he said. He added, however, that some of the SOA tools could likely be based on work coming out of the Web Tools project. Milinkovich said there's also a chance that Oracle's BPEL Designer project proposal, if accepted, might become part of STP.

The project has been posted and will be accepting comments until late October at news://news.eclipse.org/eclipse.stp. Usable code could be available by the end of this year, Milinkovich said. ▮



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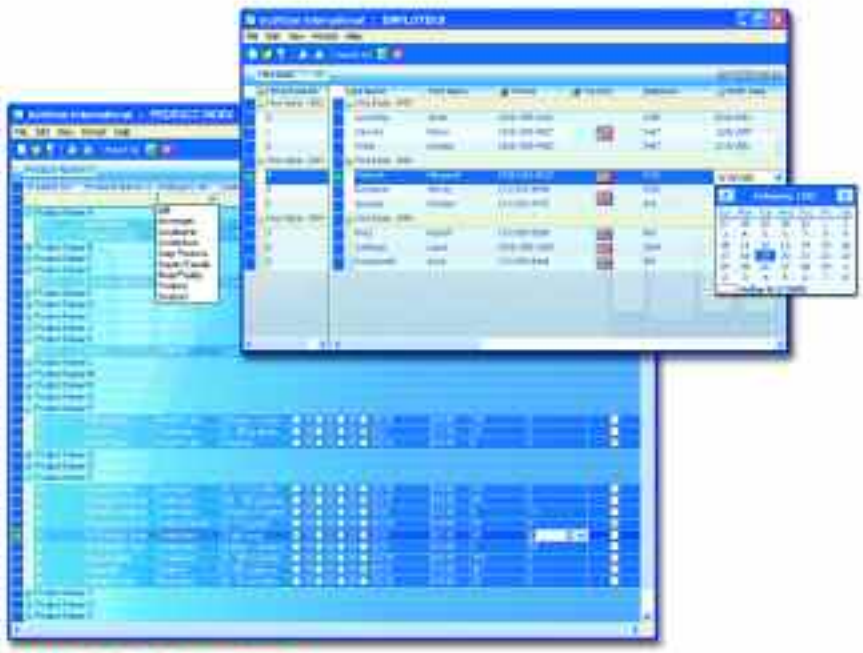

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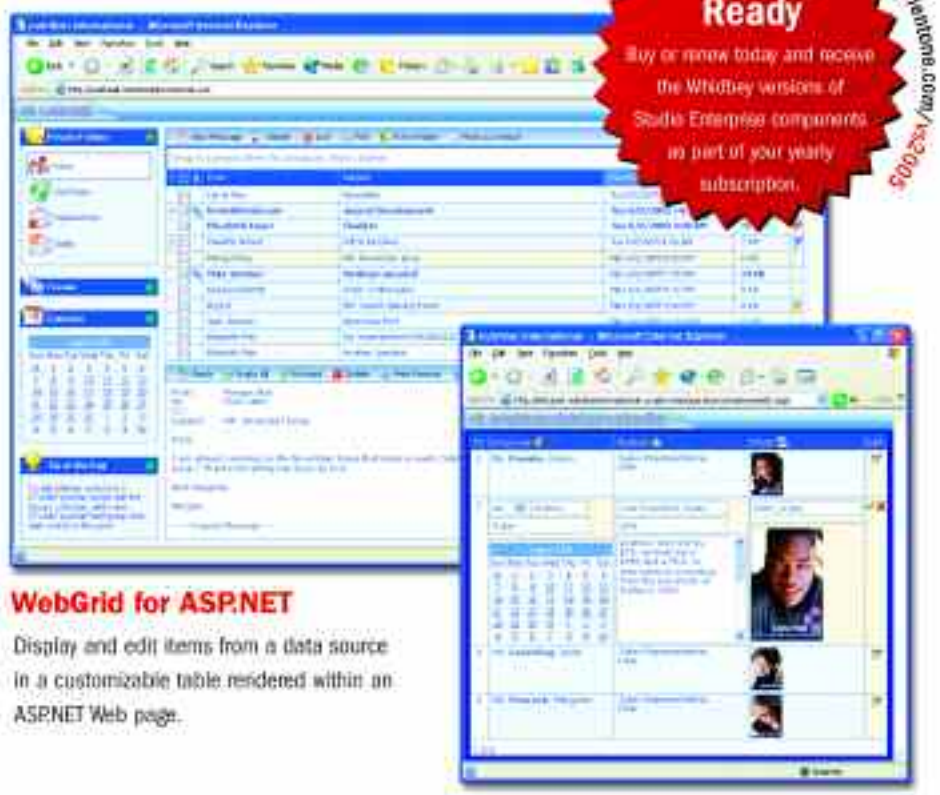

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For Workflow Monitoring, Enerjy = CQ2

New program gives development managers tools to monitor the process

BY ALEX HANDY

Nigel Cheshire and his company, Enerjy, have been working on static code analysis tools for Java for almost two years now. After gaining a footing in the marketplace, Cheshire and his team found that there was a crying need for better tools to help managers track their coders and monitor their progress.

"There's no such thing as key performance indicators when it comes to software development," said Cheshire. "How much of this code is actually being tested? We can do peer code review, where we take some code and put it on the projector and pick holes in it." But that's about as deep as it gets in most development environments, Cheshire said.

"We've been focused on the Java marketplace for about two years or so. We've had a static code analyzer that's a plug-in to most of the major IDEs. So going back about a year or so ago, we had a little bit of an 'aha' moment through a bunch of discussions with our own customers." That moment came when Cheshire realized that most Java developers viewed static code analyzers with disdain.

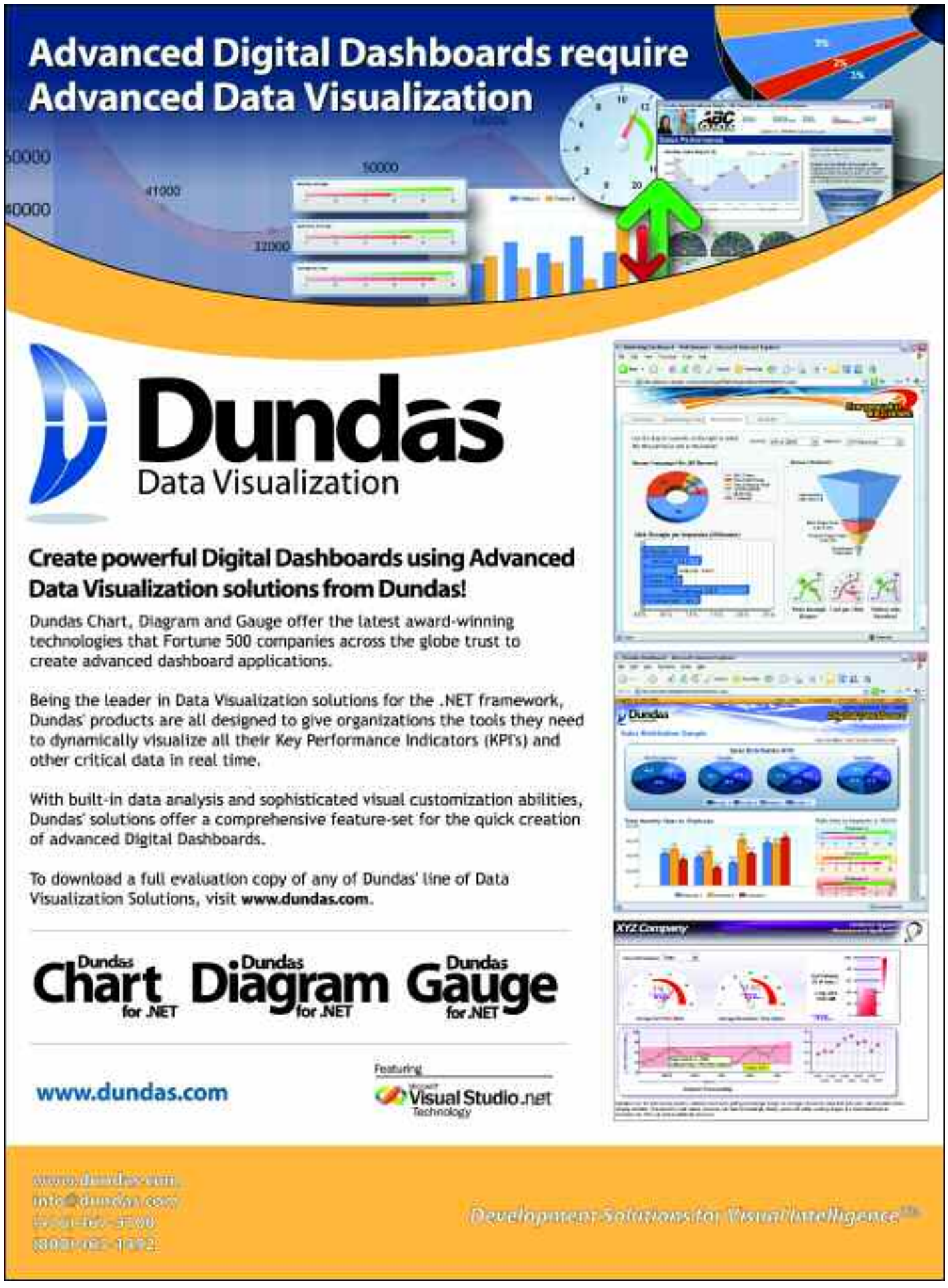
So Cheshire and his crew created CQ2, a new management workflow monitoring program.

"There's a couple of main areas that we monitor," said Mark Dixon, Enerjy's chief technology officer. "One of those is compliance violations. Code analyzers typically have violations that are high, medium and low priority. Low priority might be a formatting error. It's not actually breaking the software. A high-priority item is potentially a bug. By watching the source-control system, we can tell which developer is writing the buggy code."

CQ2, which will start at US$20,000, sits on top of the development process and aggregates data from the version-control system, code archives and individual workstations to give managers a full view of how their team is performing. But all that info is shared with the team as well.

"There is a part of it that's reading out to developers as well," said Cheshire. "It's just the first time that managers can aggregate that information."

"We also monitor your unit testing," said Dixon. "Many shops use Junit, and we monitor if you have any failings because those tests should be passing all the time." ▮



Macromedia Advances IDE for RIAs

BY DAVID RUBINSTEIN

To help create the next generation of rich Internet applications, Macromedia earlier this month released Flex 2.0, an upgrade of its development environment.

Flex 2.0 includes Flex Builder 2, the Eclipse-based development environment formerly known as Zorn, and Flex Framework 2, which includes class libraries and utilities such as a compiler and debugger. It is being packaged for less than US$1,000 to help "open the floodgates and get a million developers using Flex," said Jeff Whatcott, vice president of product management at Macromedia.

For companies requiring enterprise-type features, Flex Enterprise Services 2 brings in automated testing through integration with third-party suites Whatcott could not yet reveal, as well as core runtime services such as compilation and caching, messaging and transparent, cross-tier data synchronization built on the publish/subscribe model, Whatcott said.

RIA 2.0, as Macromedia refers to new Internet applications, "requires server-side intelligence as well as client-side intelligence," Whatcott said. Flex 2.0 advances the notion of a service-oriented client—today, servers can work with data models and provide messaging, persistence and deliver operating system-agnostic applications, while clients work under a page model, are tied to the runtime or operating system, and lack native SOA connectivity, Whatcott said. Flash 8.5, released with Flex 2.0, is based on ActionScript 2, which seeks to bring the client and server together, he said. A single click when a Flex application is loaded will get the new Flash Player onto a client, he noted.

Also new in Flex 2.0 are the ability to define states of the application and a bidirectional, external API that allows the Flash Player ActionScript to interact with AJAX and HTML-based applications, Whatcott said. ■

BEA Acquires NitroX With M7

◂ continued from page 1

the SOA market, BEA was "really keeping pace with all the big boys, and this is another move to do that. M7 has always supported the WebSphere environment from IBM, and BEA is going to compete with them."

Also at BEA World, the company announced WebLogic Real Time Edition. This new version offers predictable cleaning schedules for application memory, and is targeted at users in environments where occasional multisecond server pauses during memory cleaning cycles are a problem.

The new real-time software will be available from BEA in the fourth quarter of 2005.The company also announced a new certified Java Spring package and Spring support across its product line. ■

Tool Providers Show Support for Microsoft at PDC

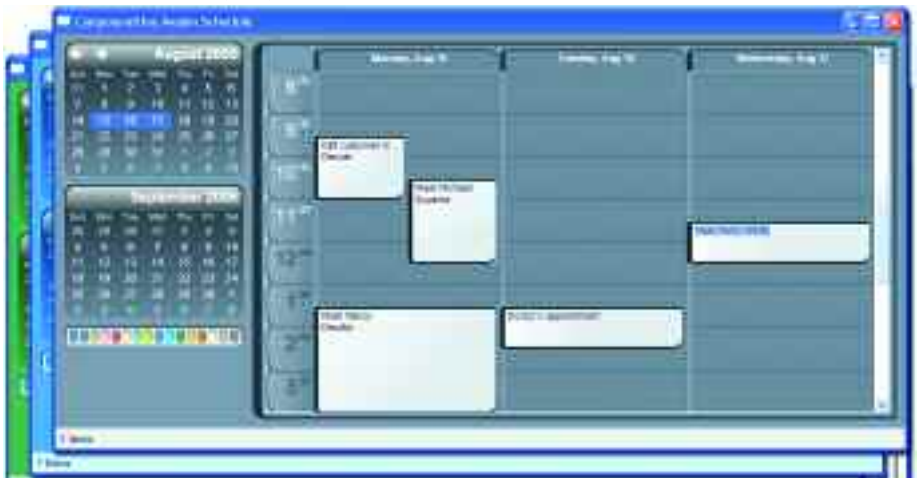
BY ALAN ZEICHICK

LOS ANGELES — At **Microsoft**'s Professional Developers Conference, held here in mid-September, many tools providers were showing off their latest offerings in the exhibit hall. While the new and updated tools covered a wide range of functions, from user interface components to applications management, there was a distinct theme: These companies were vocal in support of Microsoft's latest APIs, including the Windows Presentation Foundation (WPF), formerly known as Avalon, and Windows Communication Foundation (WCF), formerly called Indigo, due to ship next year with Windows Vista.

Actional showed a new application management agent for WCF. The agent will instrument Windows Vista applications for visibility and control with Actional's Looking Glass SOA management platform.

Appistry has updated its Enterprise Application Fabric software to support the .NET Framework. EAF provides a fault-tolerant framework for building self-organizing, self-managing transactional applications. It had previously supported native C/C++ and Java applications running on Linux and Windows; now it also supports C# and VB.NET.

AVIcode is offering .NET Management Pack, Operations Edition. The free download lets Microsoft Operations Manager 2005, Microsoft's administrative application, monitor the performance and availability of deployed ASP.NET and Web services applications. The company has already offered a more configurable Enterprise Edition, which also can monitor WinForms, console applications, Windows services, .NET Remoting and COM+ components.



ComponentOne's WinFX Schedule Control works with the new Windows Presentation Foundation.

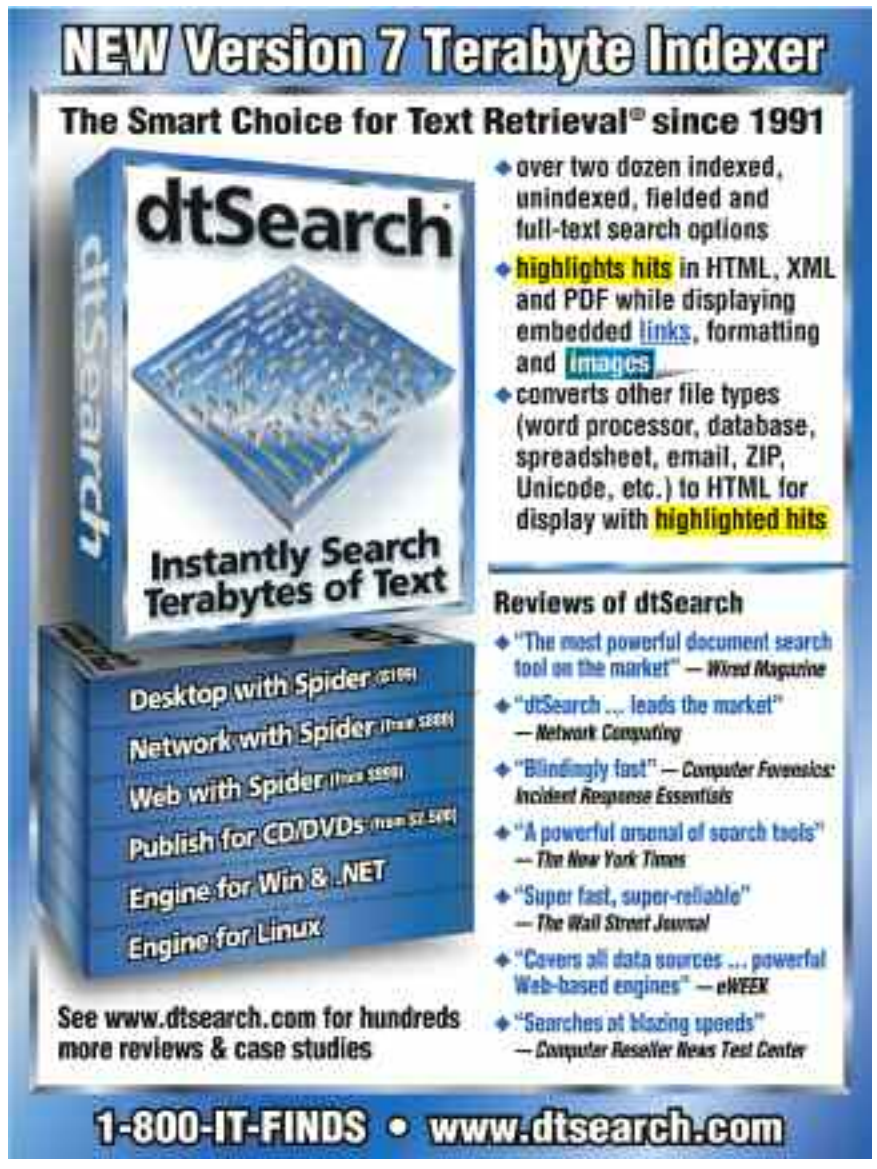
ComponentOne presented its WinFX Schedule Control, a new component for the WPF. The control presents appointments arranged on a calendar, similar to a day planner in paper form, or to the event planner in Microsoft's Outlook. The library includes a custom month calendar control that can be used to select the dates that should be displayed in the schedule; the appointments are stored in a regular DataTable object.

Digipede Technologies, which makes a grid infrastructure server for creating clusters of Windows servers, introduced Digipede Framework SDK. The SDK, for the company's Digipede Network grid, is designed to help developers create distributed .NET and COM applications. The SDK is free; pricing for the grid software starts at US$995 for the grid controller server and five nodes (which the company calls agents), and then $199 per additional node.

Electric Rain previewed its ZAM 3D modeling and animation system that uses WPF. The software, designed to work with Visual Studio and Microsoft's new Sparkle Interactive Designer graphics package, maps 2D images and video onto 3D elements.

ILOG announced Rules for .NET 2.0, a Windows application that uses Office 2003 for developing and managing business rules. The business rules can be created using decision tables within Excel, or textual if-then-else statements in Word. The new release also can be used to manage rules embedded into BizTalk Server; add-in modules allow rules to be managed using Visual Studio, and deployed to a SharePoint server. The software will be available later this year.

▸ continued on page 24



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Microsoft Debuts Workflow Foundation Classes

◂ continued from page 1

fessional Developers Conference in September, will provide natively what up to now has been an extra feature added on to applications.

Windows Workflow Foundation (WWF) will provide a single technology for building workflow support in business process automation for both system and human workflow tasks. This could range from the movement of a document through an organization to the business rules for system management.

Like other new Windows foundations technologies—Windows Presentation Foundation and Windows Communication Foundation—WWF will be ported to Windows XP and Windows Server 2003, so users won't be forced to upgrade to Vista to run the workflow technologies.

By adding automated workflow, Microsoft aims to take the potential for human error out of a process. "We're always trying to make things simpler to use and move things we do manually onto workflow systems," said Paul Andrew, product manager in the connected systems division at Microsoft.

A number of companies have built their own workflow systems, including Adobe Systems, Computer Associates, IBM, Novell and Oracle. But these are tied to the product. Microsoft wants to make workflow a part of its major product lines so anyone can use it, just as it took the one-time add-on TCP/IP protocol and made it a native part of Windows.

'COMMODITIZING WORKFLOW'

"We're making it possible for application developers and ISVs to put workflow within their apps," said Scott Woodgate, group product manager in the connected systems unit. "Certain high-end apps have been heavily invested with a workflow engine, but smaller [vendors] couldn't afford it. We're commoditizing workflow so any ISV can put workflow in their application. This isn't meant to compete with [other workflow-enabled apps]; it lets people build [workflow-driven] apps much more readily."

Windows Workflow Foundation will be used across many future Microsoft products, including Windows Vista and Longhorn server (which has yet to be formally named), Microsoft Office 12, BizTalk Server and the Microsoft Dynamics Products.

BizTalk 2004 already includes a technology called Human Workflow Services (HWS), which supports automated business processes that involve the routing of documents. HWS will be a part of BizTalk 2006 but eventually will be phased out in favor of WWF in BizTalk 2008, or whatever the successor of 2006 is dubbed.

Support for Windows Workflow Foundation will be available for free as an add-on to Visual Studio 2005. A beta version is available from Microsoft now. It will be a part of the Visual Studio interface and will come with its own debugger for testing the workflow support, just as a programmer would test a VB.NET application. ▮

Salesforce.com: Apps Free for All

◂ continued from page 1

DB, Appforce API and the Appforce OS.

Appforce and AppExchange are available in beta now with 70 new applications, and there could be more when the service officially launches this winter. Applications provided by Salesforce.com will be free to all subscribers, which Salesforce.com says now extends to 16,900 companies and 308,000 subscribers. Third-party applications may have a cost, however.

COME ONE, COME ALL

One doesn't even have to be a Salesforce.com customer to go to the AppExchange site and start writing apps for any and all to use, said Adam Gross, director of product marketing for Salesforce.com, in San Francisco. You can sign up for the developer edition of the site and start making your own applications.

Applications written on the Appforce platform and made available on the AppExchange run on the same infrastructure as Salesforce.com's CRM applications. As such, they have the same high security and reliability as Salesforce.com's applications, which have earned a reputation for secure data integrity.

"This lowers the barrier for a developer to make and offer an application, and it lowers the barrier to consume an application," according to Gross. "So we think it will allow a whole new generation of apps to touch the enterprise, rather than be limited to just CRM and ERP applications."

For developing basic applications, Salesforce.com offers a builder that is limited to building forms-based data-driven applications that have a Salesforce look and feel and work within its data model, which it says will be sufficient for most applications. Developers use Microsoft Excel-like expressions to perform the computation, Gross said.

To get beyond basic cell computations requires programming to the Salesforce.com Web services API, which the company supports through a variety of languages. Developers can download starter packages, sample code and documentation for programming in C++, C#, Java and PHP with tools such as BEA's WebLogic Workshop, Borland's JBuilder, IBM's Web-Sphere Studio Application Developer and Microsoft's ASP .NET and VB.NET. The kits can be found at www.sforce.com /resources/toolkits-samples.jsp.

One Salesforce.com customer, MW Advisors, has already experimented with publishing some of its work on AppExchange. MW Advisors is a business services firm specializing in CRM applications that has done its share of Salesforce.com implementations for customers.

Company president Blake Wolff said he has "no expectations to make any money on the product." It released the applications as a way of showing off its work, a point of pride and to get some name recognition.

The current list of applications available is at www .salesforce.com/appexchange. Access is free for now if you have a Salesforce.com account.

Normal Sforce.com pricing is US$65 per month for access to its CRM apps; $125 adds the ability to integrate those apps with a company's own. ▮

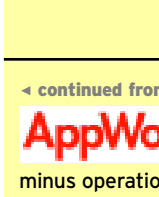
News Briefs

MORE UPGRADES

◂ continued from page 5

AppWorx JDBC database integration, and cross-database support for data unions, intersections and minus operations. It also allows 128-bit SSL encryption . . . Aonix has released version 8.2 of **ObjectAda**, its Ada development system for Linux. This release lets developers choose between the company's stand-alone IDE or a new Eclipse plug-in for editing the language . . . Version 4.1 of **SOA Test**, the Web services testing tool from Parasoft, adds support for IBM's WebSphereMQ, TIBCO's Rendezvous and SMTP to a long list of supported messaging and transport protocols. The US$3,995 software runs on Linux, Solaris and Windows . . . Innaworks has updated **mBooster**, its compiler for Java applications targeting small-footprint J2ME devices. The new release adds automatic refactoring of class hierarchies, method inlining, declarative resource packing, stack map optimizations and tighter compression of JAR, PNG and M3G files . . . ComponentOne has released **Studio Enterprise 2005 version 3**, the latest edition of its presentation layer component suite for .NET and ASP.NET. This release contains updates of the company's True DBGrid for .NET data grid and Chart for .NET graphics components . . . Version 1.1 of **MyFaces**, the Apache Software Foundation's open-source implementation of JavaServer Faces, is now compatible with the JSF 1.1 specification. The update also includes 164 bug fixes and 43 new features . . . **Rhapsody 6.1**, the model-driven development system from I-Logix, now supports DoDAF, the U.S. Dept. of Defense Architecture Framework, as well as the latest draft of SysML, the Systems Modeling Language being designed by Object Management Group. It also has new role-based packages to improve software testing . . . Real Software has shipped a version of its **REALbasic 2005** development environment for Linux. The software includes a visual IDE, a single-user SQL database based on SQLite, an XML parser and royalty-free application distribution. A free version is available; a supported version with cross-platform compilation and remote debugging costs US$499.95.

PEOPLE



LINTHICUM

Bridgewerx has hired **David Linthicum**, an integration expert and author who most recently was CTO of Grand Central Communications, as its new CEO. Bridgewerx sells application integration software for small and midsized businesses . . . **James Crawford** is the new director of engineering for Composite Software, which makes integration tools and servers. Crawford had managed software research at NASA's Ames Research Center . . . Open Source Development Labs, the vendor consortium that develops and promotes Linux, has hired **Dave Rosenberg** as principal analyst. Rosenberg, who has a background in technology marketing and journalism, will write reports on marketing trends and other collateral, and manage OSDL's marketing communications programs . . . BEA Systems has hired **John Giubileo** as its new SVP for product operations and **Annie Shum** as VP for SOA strategy. Giubileo had been VP of eTrust R&D for Computer Associates; Shum had served as corporate architect at BMC Software, working on analytics software . . . Palm—the hardware company formerly known as PalmOne—has hired **Mike Farese** as SVP of engineering. Farese had been president and CEO of WJ Communications, which sells semiconductors to the wireless industry . . . **Larry Abrahams** has joined ActiveGrid as VP of engineering; previously, he was SVP of product development at Blue Titan Software. ActiveGrid sells a server stack based on Linux, Apache, MySQL and Perl/PHP/Python.

STANDARDS

A number of companies, including BMC, CA, Microsoft, Novell and Sun, have submitted a new Web services management spec to the Distributed Management Task Force, a vendor consortium. The proposed **WS-Management** defines an XML-based cross-platform application management protocol roughly analogous to SMNP. ▮

Love-In for Vista, WPF at PDC

◂ continued from page 20

Component maker **Infragistics** showed off its presentation layer tools for Windows Vista. The first beta of the DataPresenter & Charting Control, now available for download, displays 2D and 3D grids and charts for WPF, and uses enumerated properties to let developers select alternate looks and user interface layouts. It can pull data from a variety of different data sources, including WCF.

JetBrains demonstrated ReSharper 2.0, a forthcoming Visual Studio 2005 add-on that provides refractoring, intelligent code completion and on-the-fly error highlighting. The new release of ReSharper, to ship later this year, adds support for C# 2.0. It also has 27 new refactorings, supports ASP.NET, and exposes an API to allow for extensions and plug-ins. The company also previewed dotTrace, an application profiler for .NET.

Macrovision showed new InstallShield technology that will let developers use Visual Studio Team System to deploy and manage distributed applications through Microsoft's Systems Management Server. The new technology, not yet available, will leverage the underlying data model created by Team System, called the System Definition Model, to package applications for deployment by SMS from within the Visual Studio user interface.

Chart FX for Windows Presentation Foundation, from SoftwareFX, will offer 2D and 3D graphics, animation and vector capabilities using XAML.

Mobiform Software demonstrated Aurora XAML Designer, which can be run as a stand-alone tool or as a plug-in for Visual Studio. XAML is the XML-based markup language used for Vista's new display infrastructure. Aurora makes it easier for developers to work directly with the markup language code to build user interface components.

Oracle announced that its Database 10g Release 2 is now available for Windows. The database update adds Oracle Database Extensions for .NET, which lets developers create stored procedures using any .NET language. This is a similar capability to the new .NET Framework features that Microsoft is adding to SQL Server 2005. 10g Release 2 also implements the XQuery standard for accessing XML data, and adds support for transparent data encryption and browser-based application management.

ScanSoft is updating its OmniPage Capture SDK, an image scanning and OCR tool set, to work with Microsoft's new XPS document format. The SDK not only can target XPS for importing and exporting graphics, but also can convert between XPS and PDF, TIF, JPEG, GIF and various Office document formats. The new capabilities will be available shortly after Microsoft releases Windows Vista, which is expected in the second half of 2006.

SoftwareFX showed off that its Chart FX for WPF control will be able to leverage WCF to interact with diverse data sources. The control will use XAML-based styling and will combine animation, 2D and 3D graphics and vector-graphics capabilities.

Xamlon previewed Xamlon Web, a Visual Studio 2003 plug-in that compiles WinForms applications as Macromedia Flash applications. Applications written using VB.NET or C# are first compiled to Intermediate Language bytecode by Visual Studio, and then translated from IL into Macromedia's SWF format. The resulting SWF application, which can communicate using Web services, can be run on any Flash 8-compatible platform; a .NET Framework runtime is not required on the client. The company says that the software will ship by the end of the year, and will cost US$499 per developer. ▮

Xamlon Web, currently in beta, compiles WinForms applications to run cross-platform using Flash 8; no .NET runtime is required.

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SCO Presents a New Me to Market

Strategy shift to mobile seen as better 'than suing people'

BY EDWARD J. CORREIA

The SCO Group's move into the mobile space, announced last month with the introduction of the Me Inc. enterprise platform, was seen by one analyst as a clever attempt to salvage its business by latching onto the exponential growth and functionality of mobile devices.

"Clearly the organization is trying to correct itself," said Chris Lanfear, embedded software group manager at Venture Development, a technology research firm. "This could present a bunch of new opportunities for SCO other than suing people."

Set for release this month, Me Inc. is a means to extend enterprise back-end data to mobile browsers, permit smartphone users to monitor and report on team projects, and to broadcast voice messages, opinion polls and other interactive data.

The solution consists mainly of the Me Inc. Edge Processor, an application for Unix or Windows servers that authenticates clients, handles sessions and aggregates data requests. Also included are device-specific, client-side applications for messaging and data access. Initial support will be for Palm's Treo, with Windows Mobile, Symbian OS and Blackberry to be added soon after.

Of SCO's shift in strategy toward mobile, Chris Sontag, general manager of the Me Inc. digital services division, said, "With everybody we've talked to, it's been unexpected. In some ways I can agree, but if you look at the assets of the company and what we've done and our core expertise, it's a logical extension."

Me Inc. initially will be offered as a hosted service, Sontag said. Monthly pricing will range between about US$5 for simple applications into the hundreds, depending on needs and level of customization, he said. The company also plans to offer Me Inc. as an appliance and as installable software. A developer edition also is planned; pricing was not disclosed.

The platform handles connection intermittency, Sontag said, with on-device caching. Persistent data is secured using built-in 128-bit encryption (SSL) and "the ability to have cached data degrade and disappear if the back-end connection doesn't occur at periodic intervals," he said. So in cases of a lost phone, "important corporate data will not stay there for very long." Those settings are application-specific and can be enforced enterprisewide, he said.

Perhaps the most lucrative opportunity for SCO, Lanfear said, would be in consumer-based services offered through carriers, an opportunity that Sontag said also will be pursued. "Everybody has a mobile phone right now; people are on the move, and SCO is capitalizing on the huge gain in mobile devices," said Lanfear. "Almost everyone has some use for this, not just road warriors but soccer moms," he said, adding that he can think of no such service that exists today. "And it's such a simple idea, I'm surprised no one has thought of it before."

SCO CEO Darl McBride alluded to the strategy with a throwaway line at the end of his presentation at the company's OpenServer launch event at Yankee Stadium in June. Sandy Gupta, the company's vice president of engineering, also at that time said that SCO sees a future of "mobile and thin clients being served by fat servers." ▮

Nokia Brings Symbian OS Debugging to Eclipse

BY EDWARD J. CORREIA

First the Metrowerks brand disappeared. Now, another vestige of the Metrowerks legacy is about to be struck down. Nokia earlier this month announced that it will remove the debugging technology from the CodeWarrior for Symbian OS tools that it purchased from Metrowerks last year and use it to forge Carbide, an Eclipse-based development environment targeting devices running Symbian OS, including those not made by Nokia.

"This is a tool for the entire Symbian ecosystem, not just for Nokia Series 60 and 80," said D'Arcy Salzmann, Nokia's head of product management for development tools. "UIQ gets equal billing," he added, referring to the pen-based user interface for Symbian OS popular in phones from Motorola and Sony.

Set to be available immediately is Carbide.C++ Express, a free Eclipse plug-in that Salzmann said will permit C++ developers to target Symbian OS with Eclipse.

Going to beta later this year will be Carbide.C++ Developer edition, a €299 commercial implementation that will add on-target debugging and RAD capabilities. This product, according to Salzmann, will include MetroTRK, Metrowerks' on-target debugging kernel that formerly sold for €1,399. General availability is set for early 2006.

Set for release in the latter half of next year will be the developer-focused Carbide.C++ Professional Edition, which he said is intended for developers building Symbian OS-based devices and will include capabilities such as peripheral driver creation. All three tools are Windows-hosted.

SIGHT SET ON ECLIPSE

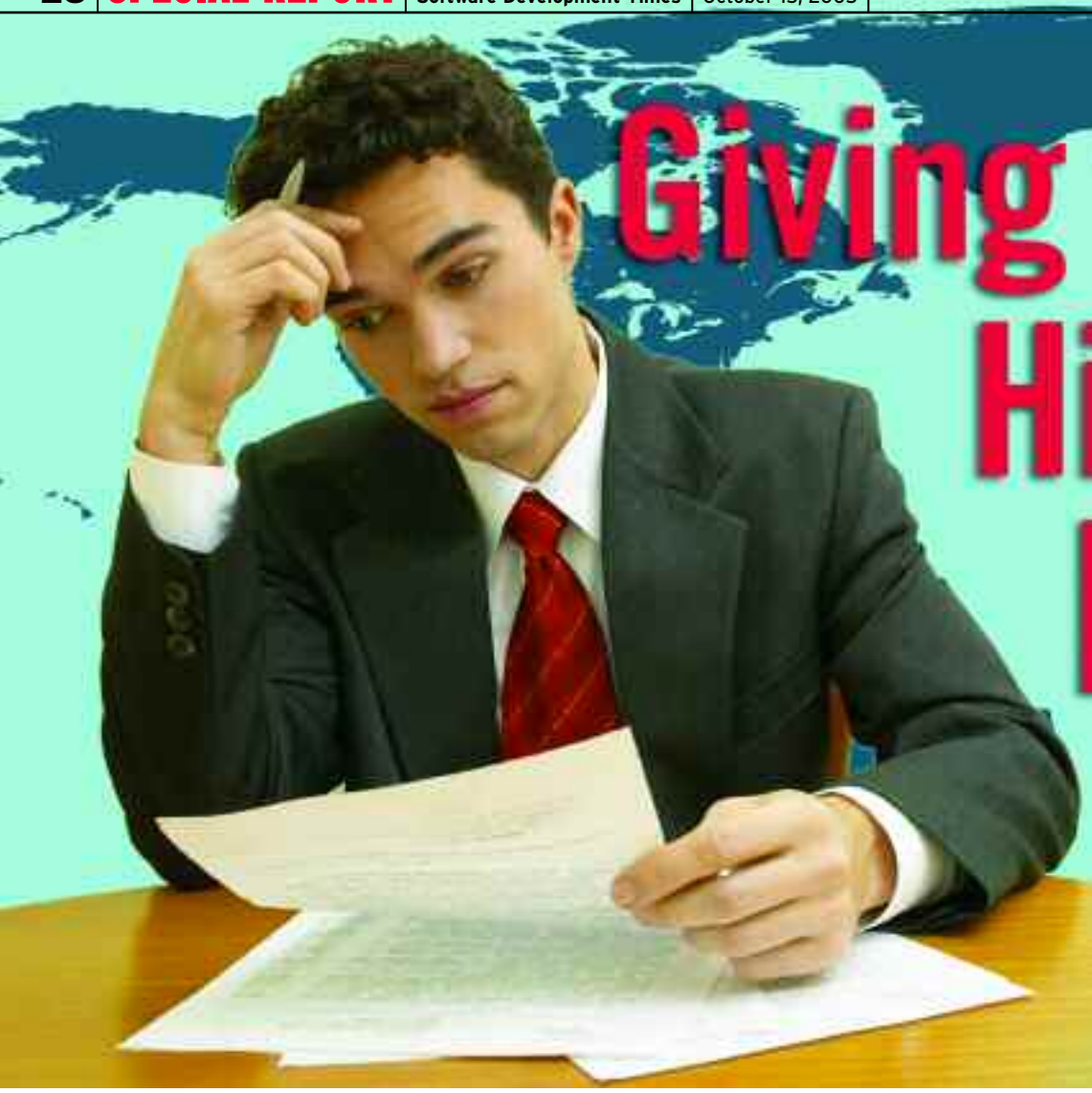
Nokia's move was part of a broader strategy announced in mid-September to move all of its development tools to Eclipse. Nokia also has joined the Eclipse Foundation as a strategic developer and board member.

Obliged as a strategic developer to lead a project, Nokia has proposed the Mobile Tools for Java (MTJ) project, which it says is intended to improve Eclipse's ability to target multiple devices with J2ME. "Eclipse serves a lot of purposes, but mobile [development] hasn't been a primary focus," said Salzmann. "We want to be the flag-waver, to provide insight into the mobile industry and evolution of mobile development platforms," Salzmann said of Nokia's Eclipse strategy, which until now has involved only marginal involvement. "Nokia developers have contributed to other projects, but this is the first time Nokia is contributing as a member."

The MTJ project will most likely become a subproject of the Device Software Development Platform project, according to Mike Milinkovich, executive director of the Eclipse Foundation. DSDP is being led by Wind River. "What we're tying to do for J2ME is similar to what the Web Tools project did for the J2EE space," Milinkovich said. "This will provide a tools platform for J2ME that major players can rally around."

Core features of the project proposal include a device and emulator framework, a deployment framework, UI design tools and localization capabilities. To form the basis of the project's J2ME framework, Nokia will donate IP from several of its Java-centric and non-Nokia specific tools, Salzmann said, but he would not specify which. "The ultimate output of the project will depend on the other companies that join the effort," he said. IBM has said it will also participate; Sybase has expressed interest but had not yet committed at press time.

Freescale Semiconductors, parent company of Metrowerks, has been divesting itself of the CodeWarrior developer tools and said it would drop the Metrowerks brand. ▮



Giving the Devil His Due Diligence

When it comes to offshore well-written contracts of companies can minimize

BY LISA MORGAN

Enterprises and software developers under pressure to cut costs are increasingly outsourcing projects to other countries where labor is less costly and subject matter expertise is abundant.

Price per man-hour is only one consideration, however. Poor contract drafting, insufficient due diligence and a lack of project management can cause projects to exceed budgets. Worse, companies may lose control of their intellectual property assets. To minimize such problems, software developers should do more critical thinking up front with the help of legal experts who understand the ramifications of agreements and the language within them. In addition, projects should be managed carefully so that small issues do not balloon into major issues.

Some software developers have been drafting and entering into binding agreements without the assistance of counsel. Although the result may not be fatal, it is nevertheless risky, if not costly. The cost of attorneys, which could run into hundreds of dollars per hour, is well worth incurring if it means avoiding unanticipated, expensive problems. Fred Greguras, of counsel at Fenwick & West, a law firm based in Mountain View, Calif., said developers sometimes "pinch pennies and waste dollars."

Selwyn Goldberg, a partner at Wilson, Sonsini, Goodrich and Rosati, a Palo Alto, Calif.-based law firm, added that developers sometimes assume that even though the parties can't resolve issues themselves at the beginning of the project, they—or a judge or arbitrator—will resolve them later. A better strategy is to understand what can go wrong with offshore arrangements, think through the entire life cycle of the project, draft a set of agreements that are clear and unambiguous, and manage relationships wisely.

WHAT TO OUTSOURCE

The easiest projects to outsource are testing and maintenance projects because they do not involve core development and are less likely to put intellectual property at risk. What a company outsources depends on the state of software development, said Greguras. For example, if a company is at the point of developing its core software, outsourcing may be premature.

"Core development is more difficult to outsource because it is best accomplished by small teams operating in a proximate location," he said.

Goldberg said his clients are more likely to outsource noncore functions to developers who they believe can do at least an equally good job at a lower cost. The decision is more difficult when the outsourcing is for a core product. If a company is developing new software, development managers have to decide whether they want to do the work themselves or have someone else do it. The decision depends on resources and competence: Who can do the best job cheaply, quickly and effectively?

Rajiv Patel, a partner at Fenwick & West, agreed that most U.S. companies are not outsourcing core projects yet, but said the situation will likely change over time. Foreign countries, like China and India, realize they need to do more to protect IP, and once they do, more U.S. companies will likely begin offshoring core projects.

DUE DILIGENCE

Once a company has decided what it wants to outsource, the next step is to identify an outsourcing partner who is not only capable of getting the job done on time and on budget but who will also meet or exceed quality, performance, security and privacy benchmarks. Minimizing the potential risks requires several levels of due diligence that can be done by internal personnel or by a consultant who specializes in offshoring due diligence.

"Depending on the size of the project, you may want to use a consultant that has been through similar deals before," said Wilson Sonsini's Goldberg.

The purpose of due diligence is to minimize risks over the life of the project. One way to avoid unnecessary risks is to have an understanding of the vendor's financial status, physical infrastructure, internal resources and reputation among customers. It's also important to understand the company's operational aspects, such as its security and privacy policies, human resources practices and software development infrastructure, including tools and life-cycle management.

"Not all vendors may have the expertise you are looking for," said Fenwick & West's Greguras. "You need to find a vendor who has a track record with projects of [the same] type."

Goldberg agreed. He said that although internal development groups generally understand the business needs of their companies, they may not know how to fully gain an understanding of whether an outside developer has the capability to complete the project more effectively than can be done internally.

Due diligence is not always executed in the same manner or to the same degree. Larger vendors typically offer more capabilities and formalities (formalized policies and practices) in place than smaller companies. The character of the geographic location also comes into play in terms of local laws, customs and culture.

For example, Goldberg and Greguras both said that outsourcing development to vendors in countries with a well-established track record, such as India, is less risky than outsourcing development to some other countries that have only recently entered this market. India's laws, as they relate to software development, generally complement U.S. laws. In addition, Indian developers are well educated and able to deliver high-quality products at a lower cost, and there is a proven track record of successful business relationships and protection of IP in development projects.

By contrast, Goldberg said that there are very capable developers in other countries, such as Russia, but greater

due diligence at the employee level is necessary in those countries because companies do not have the same proven track record and the general environment is less stable and developed than in the traditional outsourcing countries.

DRAFTING CONTRACTS

Software developers and lawyers tend to focus on different parts of the contract, which is an important point. Software developers look at the "statement of work" that describes the project in considerable detail. The statement of work may or may not include some of the boilerplate legal clauses that are more important than they are boring (such as indemnity or remedies for breach of contract).

Lawyers draft a set of documents that include a master agreement and statements of work. The master agreement covers issues common to all projects, which is then supplemented by one or more statements of work that address specific projects. The statements of work are basically detailed project descriptions that include project milestones, production and payment schedules, as well as provisions for acceptance, modification and rejection as they relate to the specific project. The statements of work may also define penalties for substandard work and late delivery, the operating systems and tools that must be used for development, and benchmarks or specifications that define service or performance levels.

The statements of work are included as exhibits to the master agreement, which means the provisions of the master agreement apply to all statements of work. At the same time, statements of work provide a level of project-specific flexibility that master agreements inherently do not provide. The duality allows companies to protect themselves both broadly and narrowly.

"Statements of work are templates by which you define the project and measure successful performance by the developer," said Goldberg. While they are often not drafted by lawyers, "they should be carefully reviewed by an attorney."

Practically speaking, software development outsourcing agreements cannot be written effectively by either software developers or attorneys in the absence of the other. Goldberg conceded that many attorneys lack the technical expertise to understand all of the details of the project itself, which is why it is important for attorneys and software developers to work together.

Fenwick & West's Greguras pointed out that statements of work can sometimes be written in a manner that varies the terms of the master agreement. "You need to make sure it's right before both parties sign it," he said.

Provisions for project and vendor management must be included in the master agreements and statements of work as necessary. It is also advisable to provide for on-site audits or inspections, and not only by corporate representatives of the "client" organization.

"External [developers] must be managed like in-house [developers], so you need to be on site sometimes," said Goldberg. "It's not advisable to rely only on what the developer reports to you about the progress of the development, because developers typically want to shield bad news, which can cost valuable development time."

Greguras said there should be mechanisms in place to ensure that vendors are held accountable. A good reporting system can help detect and remedy problems early on. It also helps to assign project managers by name so someone is accountable on both ends. He said one oft-overlooked detail is the possible use of open-source software in deliverables.

"Open source is an important issue that is not addressed in agreements as carefully in the U.S. as it should be," he said. "Attorneys generally have a surface rather than detailed knowledge of open source, [so] they don't realize that engineers may have a 'free' philosophy and also like to save work by incorporating open-source software into a deliverable. You don't want the viral taint of open-source software in a software development project deliverable."

WHO IS RESPONSIBLE?

There is a difference of opinion about who should be held accountable when problems arise: vendors, their employees

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Luxoft Does Business the American Way

BY LISA MORGAN

Developing software for American companies isn't anything new to Moscow-based Luxoft. The company, which started in 1999 with two Fortune 500 clients, claims it is well aware of what American companies expect from business, legal and technical perspectives when it comes to software development. Boeing, Dell, Google, IBM and Intel are a handful of companies that apparently agree.

"New clients don't expect the number, type and depth of formalities we have in place," said Neil Verechagin, Luxoft's CFO. "They are always surprised about how closely we monitor every aspect of a project."

Verechagin said he knows that before American companies sign on the dotted line, most will conduct thorough due diligence. Not only are the potential client companies sizing up Luxoft's infrastructure and resources, they're also analyzing Russia's legal structure, including treaties and regulations.

"To be considered by any medium- or large-size American company, the vendor has to have some foundational requirements in place," said Verechagin. "A vendor should have a clear corporate structure, carry errors and omissions insurance, and be sizable."

> American attorneys will attempt to transfer all project risks to the vendor.
>
> —Neil Verechagin, CFO of Luxoft

He encourages potential clients to visit his company to verify its operations, infrastructure, security policies and disaster recovery procedures.

Don't ask him to run a criminal background check on his employees, though. He claims it's a violation of constitutional rights. Regardless, in his view, Luxoft is the entity that should be held accountable.

Once a client has engaged Luxoft, Verechagin said, only occasional project management by the client is necessary. For one thing, Luxoft has elaborate project and reporting practices in place, and the company provides on-site support, both of which facilitate ongoing communication.

"The Fortune 500 are the most difficult," he said. "They have their own special codes that are not negotiable. [In addition, it is not unusual] for the contract to be amended 10 or 12 times."

Smaller companies are not necessarily armed with legions of attorneys who have contemplated every conceivable detail. As a result, Luxoft has drafted its own contract templates for small and medium-sized businesses that are more

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Outsourcing Contracts Require Due Diligence

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or both? U.S. attorneys typically demand guarantees in writing from the vendor that a project will be completed in a given time frame within a certain budget and that intellectual property will be protected, among other things. Some attorneys also prefer to get signed documents from individual employees that include nondisclosure and noncompete clauses, and they may also insist on criminal background checks.

However, what attorneys ideally want may not actually be practical. For example, running criminal background checks on individuals may be a violation of constitutional rights in another country.

Another consideration is ownership rights. Greguras said if a company is working with a reliable vendor, ownership rights are generally not a problem. However, the risk is greater if the company is working with a smaller vendor.

There may also be country-specific considerations. For example, Greguras said that under India copyright law, if a company assigns right, title and interest in a deliverable, it is not presumed to be assigned on a worldwide basis. That means the drafters of the contract must use the word "worldwide" in the assignment language if they want the assignment to be valid on a worldwide basis. "You may have to vary your contract language country by country," he said.

Project delegation may also be a problem if it is not addressed in writing. Some developers hire foreign software development organizations believing employees of that company are doing the work when the project has actually been delegated to a third party in another country, which complicates legal matters.

"It's wise to have a nonsubcontracting provision in a contract," said Greguras. "When you check out a particular vendor, you want to make sure you're getting the entity you hired."

Surprisingly, both Goldberg and Greguras said that the risk of losing control of IP to offshoring is exaggerated.

"The IP risks are overblown," said Goldberg. "You have the same risks offshore as you do in the U.S. If you pick a large, established company that has a good reputation, chances are they will take legal and practical steps to protect your intellectual property."

Greguras agreed. He said if foreign countries want to get software development contracts from the U.S., they will take steps to protect IP.

RESOLVING DISPUTES

The best way to avoid disputes in the first place is selecting a reliable vendor and continuously monitoring the vendor to ensure that the project is moving forward on time and on budget, and that the appropriate policies remain in effect. Should a dispute arise, it is best settled between the parties, and should actually begin at the executive level. If that doesn't work, there could be a contractual provision for alternative dispute resolution, which includes mediation, nonbinding and binding arbitration.

> If foreign countries want U.S. contracts, they will take steps to protect IP.
>
> —Fred Greguras, of counsel at Fenwick & West

Apparently, lawsuits are rare.

"Suing seldom works," said Goldberg. "Few situations actually end up in court." For one thing, it may be impossible to bring a lawsuit in a local forum or enforce a U.S. judgment. Alternatively, a U.S. court may lack jurisdiction over the defendants, meaning they can't be hauled into court in the first place.

One practical matter is the enforceability of local laws abroad. Even if U.S. and foreign laws are facially harmonious, a country may lack the requisite infrastructure to enforce some laws. Alternatively, the police power may fail or refuse to enforce some laws in whole or in part for valid or invalid reasons. A failure to enforce one or more laws could render a contract provision unenforceable.

Fenwick & West's Patel said there are two other considerations: time and the type of relief sought.

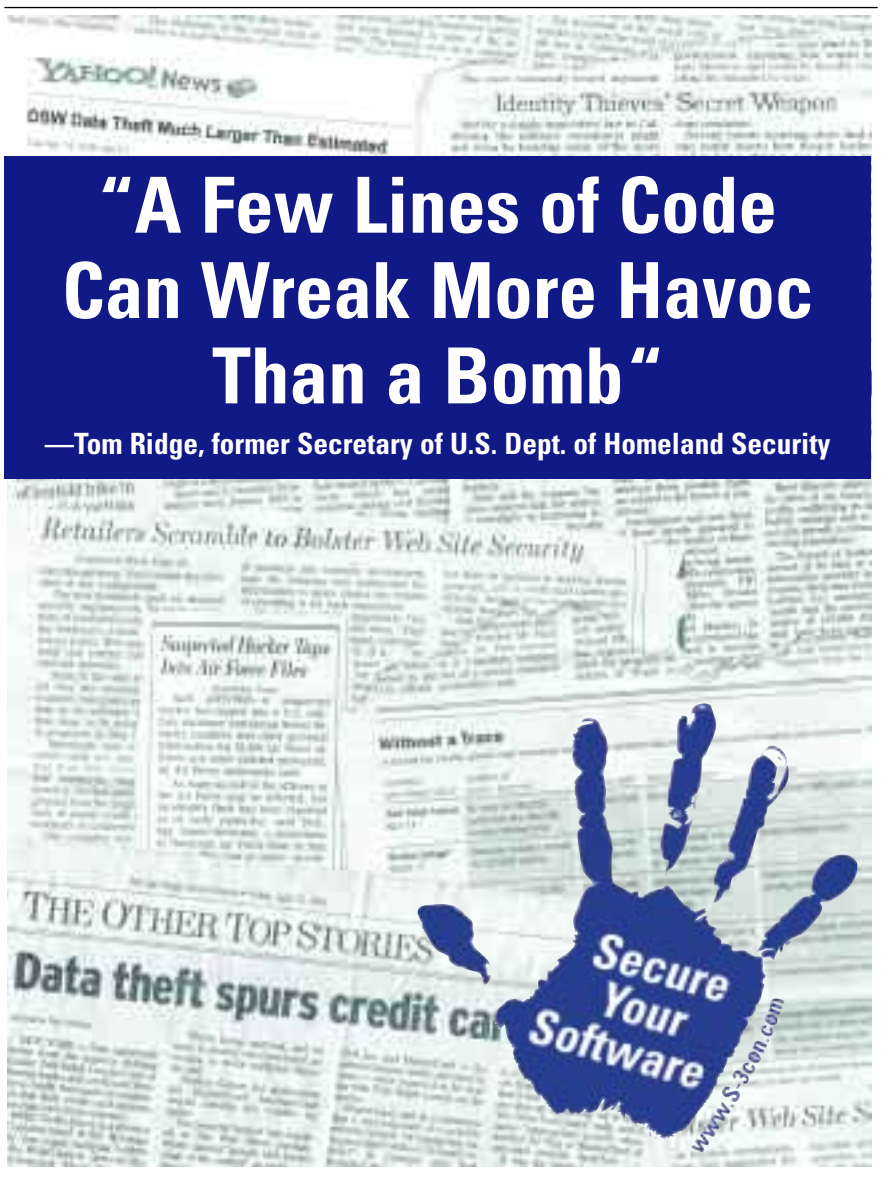
"In the U.S., you have mechanisms for judgment and resolution. In other countries, you have the same issues but enforceability may be a problem," he said. "By the time you discover your intellectual property is out, the company has moved on."

What's more, remedies may differ from country to country. For example, in the United States, companies may seek injunctive relief and monetary damages for IP infringement. In other countries, such as China and India, you're more likely to get injunctive relief than monetary relief.

Product life cycles also come into play. Software life cycles are relatively short when compared with biotechnology life cycles, for example. So the degree of monetary loss varies greatly, comparatively speaking. If the IP is worth only US$10,000, then attorneys' fees may absorb any monetary recovery. Conversely, if there has been patent infringement, then attorneys' fees are probably well worth the cost.

"High-tech companies are generally more interested in injunctive relief because their products have shorter life cycles," Patel said.

Offshoring isn't just an option for some companies; it's apparently becoming a requirement. According to Goldberg, certain investors insist that companies in which they invest outsource development because they believe the U.S. developers can't do the job as cost effectively. He said that outsourcing has become so ubiquitous that you need to have an explanation why your company does or does not outsource development. If you don't outsource, Goldberg said, you'd better have a good reason. ▮



Business American-Style

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open to negotiation.

Verechagin said that one of the most obvious moves American attorneys make is to attempt to transfer all project risks to the vendor. To satisfy their demands for indemnity, Luxoft maintains errors and omissions insurance that limits recovery to twice the project fee. Luxoft also ensures that whatever project it undertakes or whatever contract it signs does not infringe on third-party intellectual property rights.

According to Verechagin, companies should start with relatively safe projects, such as maintenance and support, because they can be easily transferred offshore. Whether or not it makes sense to transfer more strategic projects depends on the success of pilot projects, the time spent working with the vendor, whether or not there are language barriers, and whether or not the vendor exercises appropriate quality control. If not, it's a bad idea to outsource core projects.

Although some American attorneys may denigrate Russia's viability in general as a software development resource, Verechagin pointed to Luxoft's growth.

"We've grown from 100 people in 1999 to 1,200 in 2005 because we are flexible enough to meet a client's particular needs," he said. "We have the quality of people who can deliver on time and on budget, and we are flexible enough to accommodate the specific requirements of individual clients." ▮

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EDITORIAL

Predicting the Oracle's Next Move

If the estimated 35,000 attendees at Oracle OpenWorld weren't enough of an indicator, then the stream of checks flowing out of Redwood Shores, Calif., made it definite: Oracle is *the* hot technology company of 2005.

Last year, Oracle made headlines with its high-profile hostile acquisition of PeopleSoft. This year, Larry Ellison & Co. are grabbing up just about everything that isn't nailed down, including CRM giant Siebel Systems, Indian banking software company I-Flex, logistics provider G-Log, business analytics maker ProfitLogic, real-time data management tools maker TimesTen, security manager Oblix, retail software maker Retek…the list goes on.

Meanwhile, even as Oracle struggles to present a unified strategy around its many families of enterprise software—including the Oracle Applications, PeopleSoft and JD Edwards product lines—it's busy unveiling new releases of its core database and infrastructure products. The past few weeks have seen the release of Application Server 10g Release 3 and HTML DB 2.0, a flurry of benchmark records, a new branding strategy around the catchy phrase "Powered by Oracle," a set of management dashboards, expanded partnership announcements with Dell, HP and IBM, and impressive initiatives around its Fusion middleware.

It's enough to leave even a technology newspaper breathless. Indeed, there's arguably more going on at Oracle than at any other company. By comparison, the other software giants, Microsoft, IBM and SAP, seem sleepy. Even the recent Microsoft Professional Developers Conference didn't have a fraction of the frenetic energy of Oracle OpenWorld. And while it's too soon to be certain, it appears the integration of the JD Edwards and PeopleSoft customer bases is going smoothly. And, Oracle president Charles Phillips' pledge of lifetime application support was surely a welcome message to nervous CEOs, CFOs and CIOs.

While Oracle is demonstrating tremendous energy and creativity—and a seemingly bottomless checkbook—the next year will be more difficult. Developing a unified strategy and message that embraces all of its now-overlapping software lines will be a challenge. So, too, will be finding ways of integrating those offerings, something that Oracle's new customers will certainly be demanding.

The company also will need to look toward developers. While there's no doubt that its middleware, core applications and enterprise software product lines are strong, Oracle is not generally seen as a leader in software development tools; it has no equivalent of Visual Studio or the IBM Software Development Platform to bolster its offerings and drive innovation. While JDeveloper 10g is respected, Oracle needs a top-rated application life-cycle management solution.

Microsoft taught the industry that if you embrace developers, you'll win; that's why it pours so much money into Visual Studio, MSDN and training. IBM, through Rational and developerWorks, shows that it has learned this essential lesson, and tools are driving its SOA initiatives. Oracle has managed to sew up the applications and database markets, and is coming on strong in infrastructure. An obvious next step is to buy a tools company. Hmm. How about Borland? ▮

North American Developers Must Innovate to Keep Jobs

If you were going to buy a new truck, and you went to your local dealer, received a price quote and then went to a dealer 50 miles away from your home and found another dealer that would offer you the exact same truck for $5,000 less, which would you buy? Surely you should support your local dealer. But you also want to get the best price you can. Most of us would choose to buy the truck from the dealer farther away and save $5,000.

Let's now address the anti-American sentiment toward the outsourcing trend. Most of the recent coverage around the issue has focused on outsourcing's negative impact on the technology industry in the United States. The debate has reached such a fever pitch that some politicians are getting involved, and some have even gone so far as to call the move to offshoring IT work un-American.

Yes, there's an undeniable "us versus them" attitude toward offshoring in the U.S. development community. However, engineers in China, Czechoslovakia, India and Singapore are people, too, with the same hopes and dreams for a better life for their children. These engineers are well educated and develop applications the same way Americans do. Should we, then, really buy into the mentality that Americans are better or more important?

We live in a world where businesses function globally and are all a part of a global community. There are many companies that play a significant role in the American technology community but receive a majority of their revenue from other countries. For many small software companies, roughly 57 percent to 65 percent of revenue is derived from territories outside of the United States. Should these companies not be loyal to those territories that buy their goods and services, even if they are not American?

The American development community is upset because many companies take advantage of offshore engineering and IT services. But just as you would buy your truck at the dealer that offered a lower price than the one in your local neighborhood, so too should businesses hire or buy services from whoever offers the same services at a lower cost. Please remember, the developers located overseas have received exactly the same training and hold the same certification levels as American developers.

Letters to the Editor

IT'S REALLY DESIGN

Hats off to Allen Holub ["Requirements Gathering," Sept. 15, page 35] for joining the growing recognition that what people commonly call "requirements" actually are high-level design. The REAL, business requirements relate to solving business needs problems that will provide value when solved. While I'm sure he's capable with his problem statement technique, I suspect he would find my Problem Pyramid tool more systematic, reliable and teachable.

I would encourage further analyzing two of his widely shared premises. First, while use cases can be phrased in terms of the business domain, most actually describe the usage (as opposed to user) requirements of a presumed system design. Second, although often characterized as a requirements definition technique, prototyping usually has gone well past requirements and even design to mere tweaking of implemented code. Moreover, prototyping typically focuses on the GUI graphical user interface to the exclusion of the guts, where the REAL, business requirements are addressed.

Robin F. Goldsmith, JD

HEY, YOU GOT IT WRONG

In "Hey, You Got Tools in My Process" [Sept.1, page 1] Jennifer deJong lets a Forrester analyst get away with this: "'In the early days of agile, only heretics used tools,' said Liz Barnett, a Forrester analyst who follows agile development. But that is no longer true."

Hmmm—XP was invented on the Chrysler C3 project, using Smalltalk. Smalltalk is nothing if not a tool-driven environment. The entire premise of the story is so wrong that it's laughable.

James Robertson
Product Manager
Cincom Smalltalk

A QUESTION OF SUPPORT

Andrew Binstock in his Sept. 1 column ["Not IDEal," page 39] makes a fairly large point about VS2005 not supporting continual background compilation, but in fact Visual Studio has supported this feature for Visual Basic since version 1.0. It has not, to my knowledge, supported it for C# and does not appear to do so in the 2005 release. You would have to ask the Microsoft C# team why they did not choose to implement such an important productivity feature, but the IDE certainly supports it.

Dave Kulick
Vintage Software

Andrew Binstock replies: Thank you for your letter. I had not tried VB.NET. Support for flagging syntactical errors as you type is missing in C# and C++, which is the main thrust of my column. Microsoft is not alone in this regard. Borland's C++ Builder 6 does not perform this check either—despite the company's steadfast claims that it does.

Letters to SD Times should include the writer's name, company affiliation and contact information. Letters become the property of BZ Media and may be edited. Send to feedback@bzmedia.com.

In a compensation survey published in the June 13, 2005, issue of InfoWorld, 28 percent of developers are worried about losing jobs to overseas operations, and 53 percent are worried about job security due to budgetary constraints. This is the reality we live in, and it will not change.

So how can American developers turn the tide?

The U.S. development community is challenged to offer unique innovations that are not perceived as commodity services. In the early and mid-1990s, developers used many different tools to solve a variety of IT problems. In the late 1990s, developers began using the same tool for every problem—enabling the development environment to become a commodity. Today, most work is being done in Visual Studio's Visual Basic, C# or Java, and developers are tied to the particular platforms that each of these products best supports.

If the U.S. development community wants to take back control of its careers and have control of its own future, now is the time to innovate and offer something outside the norm.

Web services and SOAs continue to gain strength as the new development paradigm for the next decade. This next generation of applications can be created much faster and can be maintained more easily by using tools developed specifically to create critical new business solutions. However, before we address the technology, there are multiple steps American developers can take to add significant value to their offerings that would be impossible to duplicate overseas.

STEPS FOR ADDING VALUE

First, forget technology for technology's sake. Too many developers focus on "resume building." In other words, they want the right buzzwords like .NET or C# and fail to focus on the solution, which costs businesses millions of dollars a year. Developers need to be business-savvy and inquire as to the purpose of the application they're building. Is it to reduce costs? Improve efficiencies? Extend and improve customer services? Increase efficiency between suppliers and vendors?

Second, we live in a heterogeneous world in which developers must address not only Windows, but also Linux and now the new Macintosh OS X running on Intel processors. Those developers who use tools and methodologies supporting multiple platforms will be able to offer significantly more value than those who focus on a single operating system.

Third, developers must play a central role in business. As mentioned earlier, more than half of U.S. developers worry about losing jobs due to budgetary cuts. Clearly, those developers who use best-of-breed tools and methodologies that can develop applications faster and at a lower cost than Visual Studio or Java will have the highest value to business.

Web services, and in particular SOA, will be the way applications are architected and created in the next decade. Developers must, once again, look to best-of-breed to increase their chances of success at home and abroad.

Many developers have even taken pay cuts over the past four years, and many jobs have been outsourced overseas simply because the services available overseas use the same development tools that American developers use and are of the same level of quality and productivity, but are offered at one-third the cost. So the American development community can continue to offer commodity skills that can be easily obtained at a lower cost overseas, or make a bold move and offer customers and employers something they desperately need.

Businesses need developers who are business-savvy and use their knowledge to choose development approaches and tools that can deliver applications faster and at a lower cost over those who are locked into just a single tool. The aforementioned developers who offer commodity skills such as Java, Visual Studio, Visual Basic or C# have taken pay cuts, while those using cross-development tools have been able to increase their rates and achieve job security. ■

Charles Stevenson is CTO of Gupta Technologies, which makes cross-platform data management and rapid application development tools.

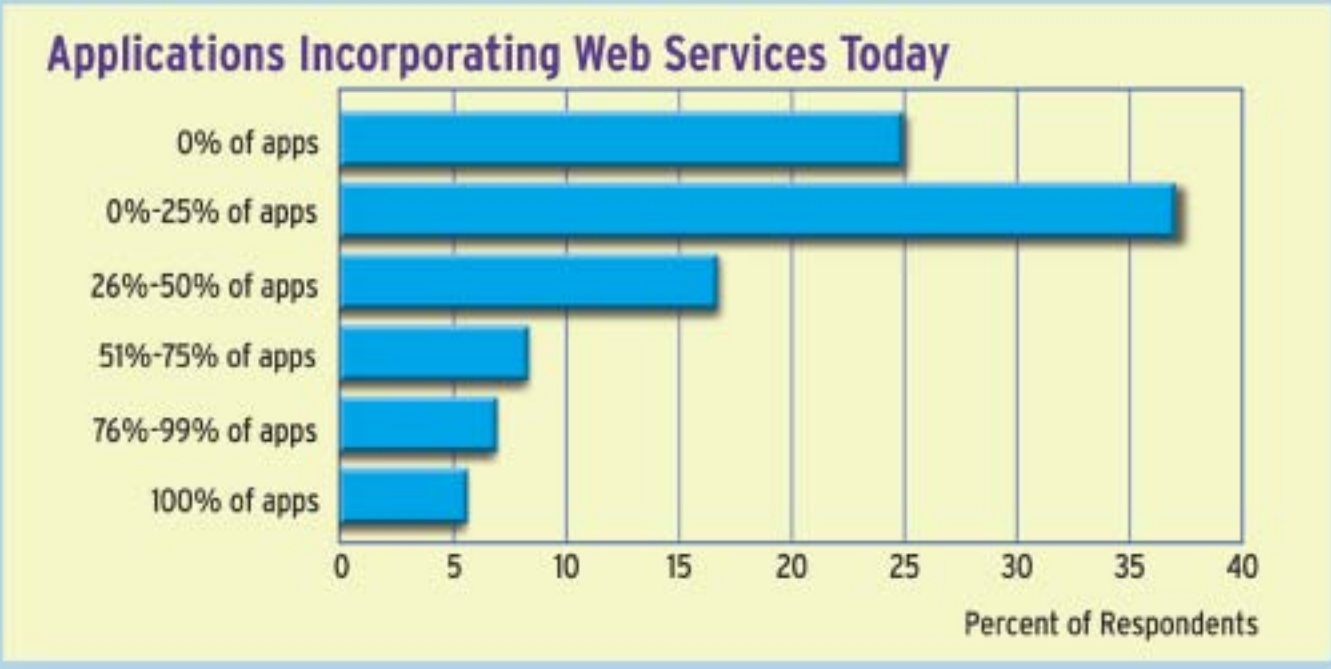
Do You Do Web Services?

DATA WATCH

Three-quarters of small and medium-sized companies say they have implemented Web services standards to some degree, according to the SMB Development Survey, Spring 2005, published by Evans Data.

It is interesting to note, however, that while fewer SMBs have developed Web services-enabled applications than large companies, the study showed that SMBs that do support Web services are far more likely to devote a greater percentage of their application portfolios to the standards.

Of the 488 respondents who came from small and medium-sized businesses, more than 1 in 5 said that a majority of their applications incorporate Web services, while only 14 percent of applications developed by larger companies embrace the standards.



Source: Evans Data

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You Call That Hard-Core?

I loved the first day of Microsoft's Professional Developers Conference. On the second day I was a little antsy, and by the time my plane climbed into the predawn Los Angeles sky two days later, I was positively muddled. Unlike the 2003 PDC, in which Microsoft concentrated on technologies many years from delivery (Longhorn, now called Windows Vista but still far from feature-complete), this PDC revealed three technologies that seem tantalizingly close to usable: Language Integrated Query, Windows Workflow Foundation, and the "Atlas" browser-based UI library. I looked to the conference to jump-start my understanding. Instead, even the 300-level sessions fell far short of sating my appetite.

A conference seminar, with a single speaker addressing several hundred strangers, must be the most inefficient form of information transfer on Earth. No, wait: Adding stilted comedy with the increasingly popular "straight man, code monkey" tag-team style manages to suck a couple extra bits of information out of the format. But conferences have traditionally been the only place to find information that is too brief for a book and too long or too esoteric to earn a slot in the relatively scarce trade press. Today, though, blogs and screencasts have thoroughly risen to the challenge of joining the expert with the interested reader. During the PDC, I learned more technical information from the blogs I read in my hotel room than I did at the sessions.

For instance, on Lambda the Ultimate (lambda-the-ultimate.org/node/view/967), Erik Meijer was writing stuff like "Visual Basic…allows static typing where possible and dynamic typing where necessary in the form of relaxed delegates, improved nullable support, dynamic identifiers (makes writing meta-circular interpreters a breeze) and last but not least dynamic interfaces, or as I like to refer to them strong duck typing (compare to simplified qualified types/type classes)." Meijer is one of the acknowledged great minds in the field of functional programming and one of the few people in the world with the standing to promote Visual Basic as a language for advanced computer science.

I walked with great hope into his 300-level talk at the PDC, which promised to cover "Common Language Runtime advances to support languages of today and tomorrow, encapsulating a spectrum from static languages such as C++ and C# to dynamic ones such as Python and the Lua programming language....More importantly, come and hear about the post-Whidbey plans for these languages, and the future CLR innovations that will better support the 'best-of' features from these paradigms."

If I didn't see a metacircular interpreter (a VB interpreter written in VB), then certainly I would come out with an understanding of strong duck typing, with the expectation of side trips into subjects like type systems, tail-call elimination and closures. Instead, I heard a not-entirely-convincing discussion of why they're adding XML literals to "VB.next" and witnessed an entirely disingenuous use of lightweight code generation.

If I were a compiler writer sitting on the fence between the CLR and the JVM, or more to the point, if I were a technically oriented development manager inspecting .NET's technological underpinning for supporting dynamic languages, I'd have come out of the session absolutely empty-handed.

I don't mean to single out Meijer's talk for abuse: It was pleasant enough, just not challenging. Other 300-level sessions were similarly frustrating, and the amount of misdirection used to satisfy the "demo every 15 minutes" PowerPoint template bordered on fraud. The ease of the Workflow Foundation, in particular, was "proved" by almost-complete reliance on prebuilt templates and examples of trivial complexity.

The main reason to go to conferences is not to attend sessions, but to network. For that, the PDC is excellent. Nonetheless, sessions are important. As with other high-end conferences, PDC attendees are in large part being rewarded by their companies for achieving some hotshot task. Another large portion consists of those entrusted by their companies to gain a competitive advantage in just a few days.

One way or the other, there is a legitimate expectation that those sessions labeled advanced be challenging and that all sessions be more than glorified commercials. Anything else is condescending.

The slide-projector one-to-many conference session is to the information age what the buggy whip was to the automotive age: something that is perhaps better abandoned than improved. I just wish that I had realized that before buckling in to my seat for the flight home. ▮

Larry O'Brien is a technology consultant, analyst and writer. Read his blog at www.knowing.net.

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Positive Impact on Quality, Schedules and Budget Through Performance Engineering and Management Best Practices

Speakers:
Theresa Lanowitz, Research Director, Gartner Inc.
Raaj Shinde, Vice President of Product Strategy and Architecture, Borland
Michel Feaster, Director of Products, Mercury
Moderator: David Rubinstein, Editor, SD Times

Date: Thursday, November 3
Time: 2:00 pm Eastern (11:00 am Pacific)

At the broadest level, performance engineering and management for application development and IT projects involves achieving specified project metrics in terms of quality, schedules and budgets. While the strategies for meeting criteria in any of these categories may be straightforward, the complexities involved in achieving all three may be close to impossible in today's challenging distributed development environments. In this Web seminar, Borland, Gartner and Mercury present best practices for improving performance engineering metrics through process and tools enhancements. An emphasis will be placed on each discipline involved in the software application life cycle and the relationship of these disciplines with regard to achieving better software quality, improving management and adhering to defined requirements, as well as improving application performance.

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A Conversation With Creator's Creator

A few weeks ago, I wrote about my disappointment with Sun's Studio Creator. My main problem is Creator's flavor of model-view-controller, which puts a straitjacket on the tool, preventing you from using a more flexible (and more object-oriented) UI architecture, such as Presentation Abstraction Control. The net effect of this tight coupling it that your Creator application is doomed to a life of difficult maintenance because the UI is too tightly coupled to both the underlying database and to the implementation of the application-level classes. (I should say that the real flaw is the JSF framework that underlies Creator—most of the commonly used UI frameworks, including JSF and Struts, are not particularly well thought out.)

Well, Sun called me up to arrange an interview with Craig McClanahan, Studio Creator's architect. Interestingly, the software we used during the interview was as interesting as the interview itself—more on that in a moment. McClanahan's motive was to prove to me that I could do what I wanted to do using Creator. In fact, you can get about halfway there, but I'm still not sold.

In the most successful systems I've written, the objects that constituted the "business logic" were responsible for creating that part of the user interface that represented their own state. Think of it as if every object has a "display yourself" method. (That's obviously not how a real system works—real systems use things like the Gang-of-Four "Builder" design pattern to separate business and representation logic, and they can represent attributes of themselves with finer granularity—but it's a good conceptual model.)

Studio Creator's main flaw is that you must lay out widgets on the screen and then hook those widgets up to the object. If the object's implementation changes, then all of the infrastructure that hooks up the object to the widget is now broken. I, on the other hand, want all changes to an object to be localized in a single place—ideally a single class definition and its inner classes. If the class definition changes, the UI should scale automatically. Studio Creator won't do that because that's not the way model-view-controller works.

Java Watch

On the plus side, McClanahan did demonstrate to me that it's possible to create a business object that doesn't expose its implementation with unnecessary get/set methods, and then hook that object up to the framework. You must create a Gang-of-Four "Mediator" that uses get/set methods to communicate with the framework while simultaneously using more reasonable messages to communicate with the business object. Unfortunately, that mediator currently can't be implemented as an inner class, so this mechanism falls more into the kluge than feature category for the moment.

Returning to the meeting software, we were using WebEx's "Meeting Center" (webex.com/services/online-meeting-svc.html). WebEx effectively lets you look over someone's shoulder as they work. You see the software that they are using, or their whole desktop, in your Web browser. McClanahan was using WebEx to demo Studio Creator as he spoke to me using a normal conference-call connection.

One particularly interesting feature of WebEx is its ability to record a session for later playback. The thinking is that it could be used for online instruction, but I doubt that a "class" taught this way would be as effective as a real instructor. The feature is invaluable, however, for documentation.

Getting your average programmer to write documentation is like pulling teeth, and written documentation is for the most part worthless. Using WebEx's recording feature, however, you can just sit programmers in front of their favorite code editor, and then record them as they explain the code. Since you can look at graphics programs too, not just editors, you can record a designer explaining the intricacies of a UML diagram (most of which are almost incomprehensible without some soft of ancillary explanation), and as a program moves into production, you can show people the connections between the design and the implementation.

This is a much more interesting use (at least to me) than a virtual meeting, and solves a real problem in an elegant way.

Finally, and on a related subject (UI builders), I was complaining a while ago that the new JavaBeans spec was not transparent enough. Joe Nuxoll, the spec lead, pointed me to several java.net sites that proved me wrong (community.java.net/projects/#16, jsr.dev.java.net and jbdt-spec-public.dev.java.net). It's a mystery why those sites aren't referenced from the actual JSR page, however. The whole Java Community Process site is, to my mind, almost completely worthless for exactly this reason—the JSRs are listed, but there are often no references to the sites where actual work goes on or to anywhere you can monitor the work in progress. These sort of references should be a required part of the JSR writeup. ▮

Allen Holub is an architect, consultant and instructor in C/C++, Java and OO Design. Reach him at www.holub.com.

Java App Servers: Hot Again, But Not Simple

A recent editorial in this newspaper suggested that the release of BEA's much ballyhooed AquaLogic product line is little more than a rebranding of existing products. This view is not incorrect—a lot of the AquaLogic goods are repackaged items. But AquaLogic also contains new features that place it squarely in the ESB arena. AquaLogic is based on the company's erstwhile JMS. It was enhanced with the features that define an enterprise service bus—on-the-fly transformations, content-based routing, security and rules-based data management—which move BEA to where it has been struggling to make itself heard: service-oriented enterprises.

BEA, however, has not neglected its bread-and-butter Java app server, WebLogic Server. Earlier this year, it released version 9.0. This release runs the latest versions of Java, of course, and provides greater integration with other technologies. For example, WebLogic 9.0 can manage Spring Beans from the WebLogic console. (Spring Beans are used within the Spring framework—the enterprise Java framework that is emerging as the leading alternative to J2EE.)

AquaLogic also works with SIP-based servlets for the first time. (SIP, or session initiation protocol, is used to establish and manage multimedia IP sessions. Its use in servlets is covered by JSR 116.) WebLogic 9.0 also integrates Jython-based scripting, and JSRs for annotations.

These might not be revolutionary changes, but they are definitely progress from a company that for the past year and half has seemed immobilized by the realization its market lead and even its market were slipping away.

Integration Watch

If you ask BEA which competitor it sees the most in evaluations, it will say IBM's WebSphere product line, of course; the other competitor it will cite on its radar screen is Oracle. If I had been asked to guess as to its top competitor, I probably would have chosen JBoss, and hedged my bet with Oracle and perhaps Sun. But there's no doubt that Oracle is a top enemy. The traditional and essentially correct view of the Oracle Application Server (OAS—yup, that really is its name) is that it's a lovely piece of technology whose entire scope of deployment will be at sites already committed to Oracle products.

What this view fails to take into account, however, is that the OAS is a fast server that delivers a wide range of technologies that Oracle is interested in giving enterprise sites. It excels at Web services and SOA deployments. It has robust support for BPEL and is very much oriented to cluster and grid computing. The software development tools Oracle provides are most impressive and in many ways better suited to writing enterprise business applications in Java than the corresponding offerings from IBM Rational. Oracle's Application Development Framework (ADF) simplifies development of pattern-based business applications, its OC4J containers simplify J2EE, its embrace of JSF eases implementation of client-facing portions, and its JDeveloper environment integrates these tools in an intuitive, productive (and free) IDE.

Through Oracle and BEA, we can see that the long quiescent J2EE marketplace is stirring back to life. The activity, so far, has been mostly in the form of undeniably useful enterprise extensions to the basic J2EE server. (This is independent of Sun's plans to rebrand J2EE as Java EE.) While this is good news, it's not really enough. Java developers need the missing ingredient in these upgrades: simplicity. The EJB 3.0 spec and the JBI initiative, along with the people's choice of the Spring framework, must be worked deeply into the fabric of these servers.

The trouble is that BEA, IBM, JBoss and Oracle are all in a desperate struggle to differentiate themselves. Adding features for SOA, portals, clusters and grid computing does distinguish them, whereas adding compliance with standards that simplify enterprise Java doesn't. They all know they'll support the major standards anyway, but because customers who have already committed to existing J2EE technologies will want SOA before wanting a new model for enterprise Java, rollout of the new, simpler technologies is not likely to occur quickly, but by steady accretion.

The wildcards in this scenario are JBoss, due to its early commitment to delivery of these technologies and its reputation as a radical player in this market; and Oracle, due to the prospect of many new deployments among the customers it has just purchased. My hope is BEA and IBM will follow suit quickly. ▮

Andrew Binstock is the principal analyst at Pacific Data Works.

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Creative Licensing

On demand. We hear that expression a lot these days. Software consumers want to be able to get what they want, when they want it, and to pay only for what they use. They won't tolerate shelfware any longer; they feel ripped off if they have to pay full fare for an application they use only during certain times of the year. And when we're talking about businesses that use myriad software products on grids, clusters and even dual-core processors, the confusion and feeling of lack of control over licensing are magnified.

Industry Watch

Companies are trying to get a grip on this by setting up enterprise architectures as a way to manage their software assets. They are taking inventory of what they have, what they use, and how many copies of the software they really need. This type of software asset management is something businesses can undertake on their own.

The flip side of the asset management coin, and something businesses up until now have not really had control over, is software value management. Companies can take broad strokes to maximize their return on software license purchases. They can determine a piece of software is obsolete and not renew the license, or they can cut down or increase the number of concurrent users in a license to reflect staffing changes. But it has been difficult for them to control seasonal variations that require more licenses for a short time, or, for example, to pay only for the portions of a large development suite that they use.

So now, enterprises not only want software on demand, but are demanding new licensing techniques to keep pace with the new methods of software distribution and use.

In a study of almost 500 IT professionals at software vendors and enterprise executives completed by software value management company Macrovision, only 28 percent of the enterprise executives said they were satisfied with their vendor's pricing and licensing strategy. The same study showed that software publishers are embracing product activation techniques and network licensing, moving away from more traditional security methods such as serial numbers, dongles and keys.

"Licensing needs to be a benefit to the publisher and to the enterprise," said Fred Amoroso, who in July became CEO of Macrovision after stints at IBM, Crossworlds and Meta Group. "We're at an inflection point for the software industry. People are moving toward services-based environments. Software as a service is increasing. [Software publishers] can either take advantage of these trends or miss the requirements of what customers are telling us."

So, after two years of research and development, and trying to address the shift toward services in the software industry, Macrovision on Oct. 10 announced FlexNET Publisher 11, the latest version of its licensing offering, with some radical new features that get to the heart of flexible licensing. New modules that allow end users to manage their licenses, reducing the publisher's support costs, and to control their own unique licensing terms on an ongoing basis add value to both customers and vendors alike.

Publishers, noted Macrovision vice president of product management Daniel Greenberg, would rather sell something than nothing, and this move away from the all-or-nothing approach to software sales creates value for the publisher while enabling enterprise customers to control costs and get a better handle on their software assets and usage.

The last point is important for regulatory compliance, Greenberg pointed out, as companies face stiffer requirements for accountability. The survey found that 72 percent of enterprises either track their software use manually, or don't track it at all.

Greenberg said Macrovision also has learned from enterprise software users that they are frustrated by manually having to move license certificates from machine to machine, that they want the option to buy hours of use for a piece of software to address peak use times, and that they want licenses to be transferable.

Software vendors, such as those selling development tool suites, are starting to pick up on the point that customers want to use their software in different ways, and to create and pay for customized packages, Amoroso said. This will become especially important as the trend toward the mega-IDEs continues, and companies sell tool sets replete with modeling tools, collaboration tools, requirements and SCM tools, and more.

Unless these companies begin to customize their offerings—allowing some customers to drop out the modeling tools, while others might want to lose the collaboration tools—and price them accordingly, the small, one-function tool makers always will have a place in the world. ■

David Rubinstein is editor of SD Times.

BUSINESS BRIEFS

Microsoft has divided itself into three core divisions—Platform Products & Services, Business, and Entertainment & Devices. The move was made to help the company become more agile in responding to market opportunities, according to CEO Steve Ballmer. The Platform Products & Services Division will house Windows client, server and tools and the MSN developer Web site, and will be headed by Kevin Johnson and Jim Allchin, until Allchin retires at the end of 2006. The company's current Mobile and Embedded Devices Division will roll into Entertainment & Devices, under Robbie Bach. Also, the company announced that Eric Rudder, SVP of server and tools, will report directly to chief software architect Bill Gates to help define the company's overall technical strategy . . . Analytic tools supplier **Fair Isaac** has acquired assets of business rules management company **RulesPower** for an undisclosed sum. The purchase is expected to complement Fair Isaac's Blaze Advisor rules management system . . . **Freescale Semiconductor** has renamed its Metrowerks tools division as Freescale's Developer Technology Organization, or DevTech for short. Freescale, which was the semiconductor division of Motorola before spinning off into its own entity, plans to continue developing Metrowerks tools for its own silicon, but has begun divesting itself of the venerable CodeWarrior tools—selling CodeWarrior for Symbian OS to Nokia and announcing that CodeWarrior for Macintosh will be discontinued after its next release.

EARNINGS: **Oracle** reported revenue of US$2.77 billion for the first quarter of fiscal 2006, with net earnings of $519 million, or 10 cents per share . . . **PalmSource** reported revenue of US$15.8 million for its fiscal first quarter ended Sept. 2, a decline from $18.2 million in the same period a year ago. The company reported a net loss of $2 million, or 12 cents per share, as compared with a loss of $0.2 million, or 1 cent per share, in the same quarter a year ago. During the quarter, the company restructured its product development and sales groups and implemented cost-cutting initiatives . . . Business integration software maker **TIBCO Software** reported revenue of US$105.9 million for its fiscal third quarter ended Aug. 28. Net income was $13.8 million, or 6 cents per share. "This quarter was a solid improvement over the past few quarters in many areas of our business," said Vivek Ranadive, TIBCO chairman and CEO . . . Linux distributor **Red Hat** reported revenue of US$65.7 million for its fiscal second quarter ended Aug. 31, an increase of 42 percent over the same period a year ago. The company reported operating income of $12.8 million; net income for the quarter was $16.7 million, or 9 cents per share. ■

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BORLAND
www.borlandevents.com/devcon

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